### CORPORATE DIVIDEND POLICY IN BANGLADESH: A STUDY OF FIRMS LISTED IN DHAKA STOCK EXCHANGE

A Dissertation Submitted in Fulfillment of the Requirements for the Degree of Doctor of Business Administration (DBA)

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#### **AUTHOR'S DECLARATION**

I hereby declare that the dissertation entitled "Corporate Dividend Policy in Bangladesh: A Study of Firms Listed in Dhaka Stock Exchange" is a record of original research work carried out by me during 2016 - 2023 under the guidance and supervision of Prof. Md. Abdul Hakim, former Chairman, Department of Accounting & Information Systems, University of Dhaka. This dissertation contains no material previously published or written by another person except where due reference has been made in the text. Further, I declare that the present research work is not submitted to any other university or institution for the award of any degree.

(Md. Jahangir Alam Sheikh)

#### SUPERVISOR'S CERTIFICATE

This is to certify that the dissertation entitled "Corporate Dividend Policy in Bangladesh: A Study of Firms Listed in Dhaka Stock Exchange" has been carried out entirely by Md. Jahangir Alam Sheikh as a researcher under my direct supervision and guidance. The present dissertation has not been previously submitted to any university or institution for the award of any degree. The candidate has fulfilled the requirements of the regulations laid down for the Doctor of Business Administration (DBA) degree examination of the University of Dhaka.

I also certify that the candidate presented an overview and synthesis of major findings of the study and that the work is appropriate for submission as a dissertation.

(Prof. Md. Abdul Hakim)

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Md. Jahangir Alam Sheikh

(Author)

#### **ABSTRACT**

The main objective of the study is to identify the determinants of corporate dividend policy followed in Bangladesh and to investigate the impact of dividend policy on stock price. The study uses a firm-level panel data set of 61 companies from eight major sectors of DSE for ten years from 2008 to 2017. The relationship between dividend per share and ownership structure, reserve & surplus, net asset value per share, earnings per share, dividend payout ratio, dividend yield and stock price has been examined in addition to the type of dividend policy of each sample company. Statistical tools and techniques like analysis of variance (ANOVA), Pearson correlation coefficient, multiple regression as well as simple linear regression have been used to find out the results of the study. One-way ANOVA test shows that there is a significant difference in dividend per share between intra-sector as well as inter-sector companies. Pearson correlation coefficient shows mixed results for the relationship between dividend per share and ownership structure, reserve & surplus, net asset value per share, earnings per share, dividend payout ratio, dividend yield and stock price.

Backward Elimination Method of Multiple Regression has been used to investigate the impact of six explanatory variables viz., ownership structure, reserve & surplus, net asset value per share, earnings per share, dividend payout ratio and dividend yield on dividend per share. Log transformed value of reserve & surplus is taken to make the regression model linear. The study is done separately for eight major sectors of DSE and it is found that same factors are not equally important in dividend decisions of firms under different sectors. The results show that log transformed value of reserve & surplus, net asset value per share and dividend yield have significant positive impact on dividend payout ratio have significant negative impact on dividend per share. In Financial Institutions sector, ownership structure, net asset value per share and dividend yield have significant positive impact while log transformed value of reserve & surplus has negative impact on dividend per share and dividend yield have significant positive impact on dividend per share. Earnings per share and dividend vield have significant positive impact on

dividend per share in Engineering sector. In Food & Allied Product sector, earnings per share has significant positive impact on dividend per share. In Fuel & Power sector, dividend payout ratio and dividend yield have significant positive impact on dividend per share. Net asset value per share of Textile sector has significant positive impact on dividend per share. Log transformed value of reserve & surplus and earnings per share of Pharmaceuticals & Chemicals sector have positive impact on dividend per share. Net asset value per share and dividend payout ratio have significant positive impact on dividend per share of Insurance sector. In addition, multiple regression results of all the sectors taken together show significant positive impact of ownership structure, earnings per share and dividend payout ratio on dividend per share. Overall, ownership structure, log transformed value of reserve & surplus, net asset value per share, earnings per share, dividend payout ratio and dividend yield have significant positive or negative impact on dividend per share of one or more of the selected sectors under study. These findings support the studies of Likitwongkajon (2019), Tanjung (2017), Gupta (2017), Chesini and Staniszewska (2017), Martin Reyna (2017), Oloidi and Adeyeye (2014), Michaely and Roberts (2011), Huda and Farah (2011), Denis and Osovob (2008), Al-Twaijry (2007), Imam and Malik (2007), Adaoglu (2000) and many others. Moreover, management views on dividend policy of firms listed in DSE have also been analyzed to identify the factors that influence dividend decisions. The survey results reveal that same factors are not equally important in dividend decisions of firms under different sectors, which is consistent with the findings of secondary data analysis. Thus, this study identified earnings per share, net asset value per share, dividend payout ratio, dividend yield, reserve & surplus and ownership structure as six major determinants of corporate dividend policy followed in Bangladesh.

The findings of the impact of dividend per share on stock price of companies of eight selected sectors produced very interesting results. The results of simple linear regression show that Banking, Food & Allied Product, Pharmaceuticals & Chemicals and Insurance sectors have significant positive impact of DPS on stock price, which supports the Relevance Theory of

dividend, i.e., Walter's model and Gordon's model. Studies conducted by Golder, Akter and Sheikh (2019), Islam (2019), Bajaja and Jain (2019), Zainudin, Mahdzan and Yet (2018), Prabhakaran and Karthika (2018), Banerjee (2018), Ahmed (2018), Joshi and Mayur (2017), Memon, Channa and Khoso (2017), Velankar, Chandani and Ahuja (2017), Warrad (2017), Misir and Khandoker (2017), Ngo and Cuong (2016), Priya and Mohanasundari (2016), Sharif, Ali and Jan (2015), Balagobei and Selvaratman (2015), Rahman (2015), Islam, Humyra and Sultana (2015), Masum (2014), Al-Hasan, Asaduzzaman and al Karim (2013), Dharmarathne (2013), Gupta, Dogra, Vashisht and Ghai (2012), Suwanna (2012), Hussainery, Zakaria, Muhammad and Zulkifli (2012), Hasan, Akhter and Huda (2012), Mgbame and Chijoke-Mgbame (2011), Zaman (2011), Misir (2010), Uddin (2009), Yilmaz and Gulay (2006), Baker, Veit and Powell (2001), Travlos, Trigeorgis and Vafeas (2001), Ahmed (2000), Richardson, Sefcik and Thompson (1986) and Ariff and Finn (1989) are among those who empirically proved that dividend has an impact on the stock price of the firm.

On the other hand, it is found that there is no significant impact of DPS on stock price of Financial Institutions, Engineering, Fuel & Power and Textile sectors, which supports Irrelevance Theory of dividend, i.e., MM Hypothesis. Seyedimany (2019), Vavilina, Levanova and Tkahenko (2019), Alaeto (2018), Dedunu (2018), Tharshiga and Velnamby (2017), Balakrishnam (2016), Geetha and Swaaminathan (2015), Uddin and Uddin (2014), Dhungel (2013), Ali and Chowdhury (2010), Rahman and Rahman (2008), Uddin and Chowdhury (2005), Allen and Rahim (1996), Miller and Sholes (1982), Miller and Sholes (1978), Srivastava (1968) are among those who empirically showed that there is no relevance of dividend to stock price in line with Miller and Modigliani (1961). The survey regarding the impact of dividend on stock price produced mixed results in line with the findings of secondary data analysis. However, the findings of simple linear regression of all sample companies from all the sectors under the study taken together show that there is a significant positive impact of dividend policy on the stock price. The findings of the study will be helpful to the equity investors, corporate managers and other stakeholders of the capital market in Bangladesh.

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#### **ACRONYMS**

ANOVA	Analysis of Variance
BD	Bangladesh
BSEC	Bangladesh Securities and Exchange Commission
Df	Degree of Freedom
Doi	Digital Object Identifier
DPR	Dividend Payout Ratio
DPS	Dividend per Share
DSE	Dhaka Stock Exchange
DY	Dividend Yield
EPS	Earnings per Share
Fcal	F-Calculated
Ftab	F-Tabulated
$H_0$	Null Hypothesis
$H_1$	Alternative Hypothesis
ICB	Investment Corporation of Bangladesh
MS	Mean Square
NAVPS	Net Asset Value per Share
OS	Ownership Structure
R&S	Reserve & Surplus
Sig.	Significance
SP	Stock Price
SPSS	Statistical Package for Social Sciences
SS	Sum of Squares
VIF	Variance Inflationary Factor
Vs.	Versus
WWW	World Wide Web

## CHAPTER 1 INTRODUCTION

#### 1.1 BACKGROUND OF THE STUDY

The topic of corporate dividends has a long history and is tied to the development of corporate system itself. In fact, dividend policy was driven by the changing pattern of financial markets. At the beginning stages of corporate practice, managers felt the importance of dividend payments in fulfilling shareholder's expectations. Dividends were often smoothened on the perception that any diminution in dividend might have an adverse impact on stock price. Besides, dividends were viewed as the best indicator of a company's performance in the market in addition to a regular and reliable corporate reporting.

Dividend policy has been an issue of academic debate among the financial analysts till today. There is hardly any aspect of corporate financial policy where the gap between the academics and the practitioners is larger than that of the dividend policy. Since the 1960s, the unremitting contention on dividend policy remains a polemic issue to this day. For decades, the academics have not been able to arrive at any conclusive explanation regarding the thoughts of the companies to pay dividends. On the other hand, many even claim that companies should not pay dividends, and so there is a "dividend puzzle" (Borges, 2009).<sup>1</sup>

In the middle of twentieth century, certain researchers developed theories explaining the impact of dividend policy on share prices. This is known as dividend relevance theory. This theory was developed by Walter (1963) and Gordon (1959). Lintner in his 'bird in the hand' theory, Bhattacharya (1979), Miller and Rock (1985), John and Williams (1985) through the 'signaling theory', supported the theory of the dividend relevance.

Modigliani and Miller (1961) stated that dividend policy has no impact on stock prices in the perfect capital market. According to them, the value of the firm solely depends on the earning power of the firm and not the dividend payout. Thus, dividend irrelevance theory

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<sup>&</sup>lt;sup>1</sup> Borges, M. (2009). Is the dividend puzzle solved?. SSRN Electronic Journal. doi: 10.2139/ssrn.1343782

was developed. And since then there has been a conflict between these two thoughts relating to the impact of dividend on the value of the firm. More than four decades ago, Black (1976)<sup>2</sup> wrote that "The harder we look at the dividend picture, the more it seems like a puzzle, with pieces that just don't fit together" (p. 5).

Firms generally adopt dividend policy which is suitable to the stage of life cycle they are in. For example, high-growth firms with larger funds and very few projects tend to pay more dividends out of their earnings. On the other hand, firms in the stage of introduction tend to pay lesser dividends as they have lower earnings and more capital expenditures. So, there are significant differences in dividend policy due to the life cycle of a firm. The firms may follow several interesting patterns of dividend policy which further adds the complexity to such decisions. Some firms increase dividend with the increase in earnings and cut dividend when earnings decrease. Some pay fixed dividends as they are reluctant to make changes in dividends. There are some firms which do not cut dividends even at the time of less or no earnings. The amount of dividend is just not dependent on the earnings of the firm. For dividend decisions, financial managers have to consider the liquidity position of the firm, shareholding pattern, leverage, tax policy and legal restrictions, access to capital market, economic situation and so on. Thus, there are so many factors which determine the amount of dividend and thereby the dividend policy. Therefore, dividend decision seems to be very simple but not in actual terms.

Dividend policy of a firm is a good source of information for investors, managers, lenders and other stakeholders. Dividend policy of a firm has different impact to different parties. For investors, dividends are not merely a means of regular income, but also an important source of information about the growth of the firm. Similarly, managers' flexibility for the decisions related to investment in projects is also dependent on the amount of dividend that they pay to shareholders. Lenders may also have interest in the amount of dividends declared by the firm, as higher dividend payment may reduce the amount

<sup>&</sup>lt;sup>2</sup> Black, F. (1976). The dividend puzzle. The Journal of Portfolio Management, 2(2), 5-8. doi: 10.3905/jpm.1976.408558

available for redemption of their claims. The dividend payments present an example of the agency theory as it affects the majority of parties connected to the firm directly or indirectly. Hence, dividend policy is considered as a tool to mitigate agency costs.

Different categories of shareholders may want a stable rate of dividend payment for a variety of reasons. Risk-averse investors would be willing to invest only in those firms which pay high amount of cash dividends regularly. Senior citizens also favor the stable dividend, as this is one of the sources of income at their age of retirement. On the contrary, youngsters as investors are risk seekers and so, they prefer firms which can give them long term income in the form of capital gain. Thus, when investors choose the companies as per their preference is known as "Clientele Effect".

#### 1.2 PROBLEM STATEMENT

Dividend policy in the emerging markets has continued to receive attention till today in academic research due to the differences observed between developed and emerging markets as well as flimsy empirical evidence in this area (Yusuf, 2019). Ever since the works of John Lintner (1956) and Miller and Modigliani (1961), dividend policy remains a controversial issue. Some of the questions remained unanswered, such as Does dividend policy affect value? What are the factors that determine dividend policy? (Al-Deehani, 2003). Although various studies were done on the topic, the determinants of dividend policy and its impact on stock price still remains a puzzle. Different authors have used different combinations of variables for identifying the determinants of corporate dividend policy.

Significant differences in results of various studies across countries have left a huge space to investigate dividend issues in different countries. Moreover, the research work on corporate dividend policy followed in Bangladesh is not yet enough. Keeping this in mind, the study endeavors to investigate the determinants of dividend policy and its impact on stock price in the context of Bangladesh.

#### 1.3 RESEARCH QUESTIONS

The above research problem leads to the following research questions:

- 1. What are the determinants of corporate dividend policy in Bangladesh?
- 2. What are the impacts of dividend policy on the market price of shares?
- 3. What types of dividend policy are adopted by the companies?
- 4. Whether companies from the same sector have the same type of dividend policy?

#### 1.4 OBJECTIVES OF THE STUDY

The main objective of this study is two-fold: (i) identifying the determinants of corporate dividend policy followed in Bangladesh, and (ii) investigating the impact of dividend policy on stock price. To achieve the main objective, following specified objectives are covered:

- 1. To highlight dividend policy of each sector under the study.
- 2. To identify the significant difference in dividend per share between intra-sector as well as inter-sector companies.
- 3. To examine the relationship between dividend per share and parameters such as ownership structure, reserve & surplus, net asset value per share, earnings per share, dividend payout ratio, dividend yield and stock price.
- 4. To investigate the impact of ownership structure, reserve & surplus, net asset value per share, earnings per share, dividend payout ratio and dividend yield on dividend per share.
- 5. To investigate the impact of dividend per share on stock price of each sector under the study.
- 6. To measure management views on dividend policy of firms under the study.

#### 1.5 SIGNIFICANCE OF THE STUDY

The economy of Bangladesh is growing with its corporate sector. Dividend decisions are very important for the earnings management of our corporate sector. Besides, the study became imperative considering that dividend policy remains one of the most debated and unresolved issues in corporate finance. This study is conducted on eight major sectors separately for getting the clear picture of dividend policy in the context of capital market in Bangladesh. The study tends to update and enhance earlier works on dividend policy to capture the determinants of corporate dividend policy in Bangladesh and its impact on stock price. The findings of the study would have critical implications for the investment landscape in Bangladesh. Hence, the study is of great relevance to scholars and researchers investigating dividend issues in the context of Bangladesh. This research is expected to provide contributions outlined below.

- 1. The study will foster awareness of the importance of dividend policy decision in the corporate sector of Bangladesh.
- 2. This study will be helpful to the investors at Dhaka Stock Exchange (DSE) for making better and safe investment decisions.
- 3. Regulatory authorities like Dhaka Stock Exchange, Bangladesh Securities and Exchange Commission, Bangladesh Bank, Ministry of Finance, National Board of Revenue, Ministry of Industries as well as other policy makers can use the findings of this research work to develop strong policy decisions for making capital market active and efficient.
- 4. This dissertation would be of immense help to the researchers, academicians and financial analysts to find new ways for pursuing their research on the relevant fields.

#### 1.6 STRUCTURE OF THE DISSERTATION

The dissertation is presented in seven chapters. The current chapter has provided Background of the Study, Problem Statement, Research Questions, Objectives of the Study and Significance of the Study. The remainder of the dissertation is organized as follows. Chapter Two provides an Overview of Dividend Policy that begins with an Introduction and then discussions on Forms and Types of Dividend, Cash Dividend Payment Procedure, Factors Affecting Dividend Policy, Types of Dividend Policy, Legal Aspects and Dividend Theories. Chapter Three contains Literature Review dividing into two broad sections. The First Section contains Studies on Foreign Context showing separately Studies on Determinants of Dividend Policy, Relevance Theory and Irrelevance Theory. The Second Section contains Studies on Bangladesh Context. Summary of Literature Review is added at the end of the chapter. Chapter Four deals with Research Methodology of the study in details with Theoretical Framework, Research Design, Population and Sampling Design, Sources of Data and Sample Period, Panel Database Construction, Operational Definitions of Variables, Hypotheses of the Study, Data Analysis Techniques. Chapter Five presents sector-wise Data Analysis & Interpretation and Hypothesis Testing. Chapter Six is Management Views on Dividend Policy. This chapter provides Analysis and Interpretation of Management Views regarding Factors Influencing Dividend Decisions and Impact of Dividend on Stock Price. Chapter Severn provides Some Highlights of the Study, Findings, Conclusion, Recommendations, Limitations of the Study and Scope for Further Research.

# CHAPTER 2 OVERVIEW OF DIVIDEND POLICY

#### 2.1 INTRODUCTION

Dividend decision is the third major decision area in financial management. Dividend policy of a company decides the portion of earnings to be paid as dividends to the shareholders and the portion to be retained in the company.

#### 2.2 FORMS AND TYPES OF DIVIDEND

The portion of a company's net earnings that is paid out to the shareholders is termed as dividend (Khan & Jain, 2014).<sup>3</sup> It is the prime incentive for the equity investors. Dividends may be paid in cash, in shares of the paying company, in scrip, or in other property. All of the above distributions must be made from the accumulated earnings of the company. The following sections deal with the different forms and types of dividends.

#### 2.2.1 Cash Dividend

A pro rata distribution of cash to the shareholders is a cash dividend (Weygandt, Kimmel & Kieso, 2009).<sup>4</sup> This is a very common and attractive form of dividend to the shareholders. Majority of the firms pay cash dividend (Paramasivan & Subramanian, 2008)<sup>5</sup>.

#### 2.2.2 Stock Dividend

A proportional distribution of shares of a company to its shareholders is called stock dividend. A stock dividend does not change the assets and liabilities of the company because there is no distribution of assets (Needles, Jr., Anderson, Calewell & Mills, 1996).<sup>6</sup>

#### 2.2.3 Scrip Dividend

<sup>3</sup> Khan, M., & Jain, P. (2014). Financial management: Text, problems and cases (7th ed., p. 30.3). New Delhi: McGraw Hill Education (India) Private Limited.

Weygandt, J., Kimmel, P., & Kieso, D. (2009). Accounting principles (9th ed., p. 608). Hoboken: John Wiley & Sons, Inc.

<sup>&</sup>lt;sup>5</sup> Paramasivan, C., & Subramanian, T. (2008). Financial management (1st ed., p. 100). New Delhi: New Age International (P) Ltd.

<sup>&</sup>lt;sup>6</sup> Needles, Jr., B., Anderson, H., Calewell, J., & Mills, S. (1996). Financial & managerial accounting: A corporate approach (6th ed., p. 620). Boston: Houghton Mifflin Company.

Scrip dividend is a dividend payable in scrip. Scrip dividends may be declared when the company has sufficient reserve & surplus but is short of cash. The recipient of the scrip dividend may hold it until the due date to collect the dividend or may sell it to obtain immediate cash (Kieso, Weygandt & Warfield, 2001).<sup>7</sup>

#### 2.2.4 Property Dividend

Property dividends are dividends paid to the shareholders of a company in the form of assets other than cash (Paramasivan & Subramanian, 2008).<sup>8</sup> Ordinarily, companies distribute securities of other companies owned by them. Property dividends are usually distributed in closely held companies (Smith, Jr. & Skousen, 1986).<sup>9</sup>

#### 2.2.5 Liquidating Dividend

Dividends based on other than accumulated reserve & surplus are called liquidating dividends. Such dividends are a return of the shareholder's investment rather than of profits (Kieso, Weygandt & Warfield, 2014).<sup>10</sup>

#### 2.2.6 Interim Dividend

Interim dividend refers to the dividend declared in between two annual general meetings. Usually, companies having good profits may decide to pay interim dividend. However, the directors have to consider many important aspects, such as cash resources, orders in hand, any seasonal element in business.

#### 2.2.7 Final Dividend

Dividend declared in the annual general meeting at the end of the financial year is called final dividend. This dividend is declared after taking into consideration the final financial and profit position of the company.

#### 2.2.8 Special Dividend

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<sup>&</sup>lt;sup>7</sup> Kieso, D., Weygandt, J., & Warfield, T. (2001). *Intermediate accounting* (10th ed., pp. 818-819). Hoboken: John Wiley & Sons, Inc.

<sup>&</sup>lt;sup>8</sup> Paramasivan, C., & Subramanian, T. (2008). Financial management (1st ed., p. 100). New Delhi: New Age International (P) Ltd.

<sup>9</sup> Smith, Jr., J., & Skousen, K. (1986). *Intermediate accounting comprehensive volume* (8th ed., p. 674). Cincinnati: South-Western Publishin Co. <sup>10</sup> Kieso, D., Weygandt, J., & Warfield, T. (2014). *Intermediate accounting* IFRS edition (2nd ed., pp. 720-721). Hoboken: John Wiley & Sons, Inc.

When company declares dividend for some special reasons, it is known as special dividend. Special reasons may include anniversary of the company or abnormal profits earned by the company.

#### 2.2.9 Extra Dividend

A nonrecurring dividend paid to the shareholders of a company beyond the regular dividend is called an extra dividend. It is suitable for companies with fluctuating earnings.

#### 2.3 CASH DIVIDEND PAYMENT PROCEDURE

It is the right of the board of directors to make dividend decision. The resolution of the board of directors to pay dividend needs to be approved by the shareholders in the annual general meeting of the company. Four dividend dates are significant:

#### 1. Declaration Date

The date of declaring the amount and date of the next dividend by the board of directors is called declaration date (Van Horne & Wachowicz, Jr., 2009).<sup>11</sup>

#### 2. Ex-Dividend Date

The first date when a buyer of shares is not entitled to the recently declared dividend is called ex-dividend date (Van Horne & Wachowicz, Jr., 2009).

#### 3. Record Date

Record date is the date on which all persons whose names are recorded as shareholders receive the declared dividend (Khan & Jain, 2014).<sup>12</sup> This date is the specified future date set by the board of directors.

#### 4. Payment Date

Payment date is the date of actually paying the declared dividend by the company (Van Horne & Wachowicz, Jr., 2009).

Figure 2.1 illustrates the important dates in the dividend payment chronology.

<sup>&</sup>lt;sup>11</sup> Van Horne, J., & Wachowicz, Jr., J. (2009). Fundamentals of financial management (13th ed., p. 495). New Delhi: PHI Learning Private Limited.

<sup>12</sup> Khan, M., & Jain, P. (2014). Financial management: Text, problems and cases (7th ed., pp. 31.23). New Delhi: McGraw Hill Education (India) Private Limited.

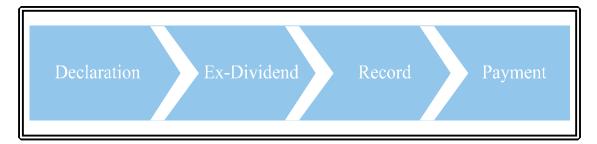


Figure 2.1 The Dividend Payment Timeline

#### 2.4 FACTORS AFFECTING DIVIDEND POLICY

Factors affecting dividend policy depend on a variety of phenomena. Major factors that have a bearing on the dividend policy of companies are mentioned.

#### 1. Profitability of the Company

Dividend decision is based on the profitability of the company. When a company earns more profit, it can distribute more dividends to the shareholders.

#### 2. Uncertainty of Earnings

Future earning is a key factor to the development of corporate dividend policy. Hence, uncertainty of future earnings affects dividend policy of companies.

#### 3. Legal Aspects

The Companies Act, 1994 and Income Tax Ordinance, 1984 have put various legal provisions regarding dividends. Tax policy of the government affects corporate dividend policy. When tax incentives are provided by the government, the company pays more dividends. So, several legal aspects are considered in shaping dividend policy of companies.

#### 4. Liquidity of the Company

Financial managers make dividend decision on the basis of liquidity state of the company. If a company has high liquidity, it can pay cash dividend. Otherwise, the company has to declare stock dividend.

#### 5. Growth Rate

Growth rate of the company is an important factor affecting dividend policy. Ordinarily, dividend policy of companies with high growth rate is different from that of companies with low growth rate.

#### 6. Condition of Capital Market

Capital market conditions – strong, semi-strong, and weak – play an important role in developing dividend policy of the companies.

#### 7. Age of Company

A new company may require major portion of its earnings for financing expansion projects and follow inflexible dividend policy. To the contrary, an old company with good track record can frame a generous and stable dividend policy.

#### 8. Past Dividend

Past dividend of an existing company has a bearing on the dividend policy of the company. Most of the shareholders prefer stability in dividends. Empirical studies state that companies attempt to maintain stability in dividends based on past dividend rates of the company.

#### 9. Inflation

Inflation influences dividend policy indirectly. Because of the historical cost principle of accounting, companies have to depend upon retained earnings to replace assets and equipment. Thus, inflation leads to the payment of lower dividend to the shareholders of a company.

#### 10. Dividend Policy of Competitors

Companies have to pay dividends at par with their competitors with a view to retaining the existing shareholders or maintaining share price in the market.

#### 2.5 TYPES OF DIVIDEND POLICY

The dividend decision designs dividend policy of the firm and on that base different companies follow different types of dividend policies. Commonly followed dividend policies are stated in the following sections.

#### 2.5.1 Constant Dividend per Share Policy

Under constant dividend per share policy, a fixed amount per share is paid to the shareholders as dividend. Such a dividend policy is more suitable for the companies that have stable earnings over a number of years (Reddy, 2014).<sup>13</sup> When a sustainable increase in earnings occurs, companies increase the regular dividend. Dividends are almost never decreased under this policy (Gitman & Zutter, 2015).<sup>14</sup> The relationship between Earnings per Share (EPS) and Dividend per Share (DPS) in a Constant Dividend per Share Policy is shown in Figure 2.1.

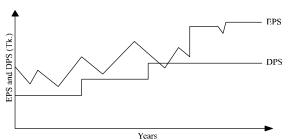


Figure 2.2: Constant Dividend per Share Policy

Investors favor Constant Dividend per Share Policy, as it will facilitate them to plan their investment. Furthermore, a stable regular and unvarying dividend per share from the firm increases the reliability of the company shares.

#### 2.5.2 Constant Payout Ratio Policy

A fixed percentage of earnings is paid out as dividends in each year under the constant payout ratio policy. Dividend per share varies according to the fluctuations in earnings even though the ratio is fixed or constant (Reddy, 2014).<sup>15</sup> The relationship between Earnings per Share (EPS) and Dividend per Share (DPS) in a Constant Payout Ratio Policy is shown in Figure 2.3.

<sup>&</sup>lt;sup>13</sup> Reddy, G. (2014). Financial management principles and practice (3rd ed., p. 652). Mumbai: Himalaya Publishing House Pvt. Ltd.

<sup>&</sup>lt;sup>14</sup> Gitman, L., & Zutter, C. (2015). *Principles of managerial finance, global edition* (14th ed., p. 631). England: Pearson Education Limited.

<sup>15</sup> Reddy, G. (2014). Financial management principles and practice (3rd ed., p. 652). Mumbai: Himalaya Publishing House Pvt. Ltd.

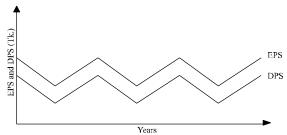


Figure 2.3: Constant Payout Ratio Policy

Companies prefer this policy because it reflects the aptitude of the business to pay the dividend. Because of the fluctuation of dividend with the quantity of earnings, it is not preferred by shareholders.

#### 2.5.3 Low-Regular-and-Extra Dividend Policy

Under this policy, companies pay a low regular dividend, accompanied by an "extra" dividend when earnings exceed regular earnings in a given year. Companies having cyclical shifts in earnings follow such a dividend policy (Gitman &.Zutter, 2015). 16

#### 2.5.4 Multiple Dividend Increase Policy

Some companies follow a policy of very frequent and slight increase in dividend to give the illusion of movement and growth of the company. The obvious hope behind such a policy is that the market rewards consistent increases.

#### 2.5.5 Generous Dividend Policy

Firms under this type of policy conserve the dividend rate at a specified level and also increase the rate of dividend step by step on the basis of earnings and reserves in the firm. Here management is very generous or liberal about the payment of dividend to shareholders.

#### 2.5.6 Irregular Dividend Policy

Under this policy, dividends are paid irregularly and fluctuate with the changing level of earnings, the bigger the earnings, the higher the dividend and vice versa. Usually, this policy is adopted when the companies have variable investment opportunities. A huge part of the profit should be retained in the year in which the corporation has profitable

<sup>16</sup> Gitman, L., & Zutter, C. (2015). Principles of managerial finance, global edition (14th ed., p. 632). England: Pearson Education Limited.

speculation proposal whose implementation may result in enough profit. On the contrary, if in any year the firm has limited or no investment opportunities, the management may allocate huge share of earning as dividend.

#### 2.5.7 Erratic Dividend Policy

Under erratic dividend policy, dividend is not paid regularly but randomly it is paid. Rate of dividend fluctuates sharply from year to year. For example, rate of dividend in one year maybe 60% while it may be only 10% in another year. Interest of shareholders and their expectations from the firm is not considered in this dividend policy. Investors do not prefer such a dividend policy.

#### 2.5.8 Residual Dividend Policy

The word 'residual' implies 'leftover' and the residual policy denotes that dividend is paid out of 'leftover' earnings. Thus, priority is given on the investment opportunities under the residual dividend policy. The net earnings are used for financing the new projects, and then the amount left over after such financing is distributed to the shareholders as dividend. Normally, the amount of dividend is highly fluctuating and frequently nil under the residual dividend policy.

#### 2.5.9 Optimum Dividend Policy

If a firm wants to pay optimum dividend, it has to find the level of dividend where a company can get the maximum benefit to increase the value of the shares by paying dividend and also get the enough amount for reinvestment. Figure 2.4 gives more explanation of the policy. Curve- A shows how the share price is likely to vary with the size of payout ratio. Curve-B shows the effect of higher payout ratios in reducing share values. Curve- C shows the combined effect of these two factors on share price. If there does not have sufficient investment to use up all its earnings, the residue should be earmarked for payment as dividend.

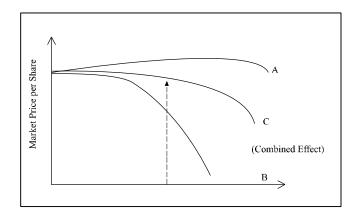


Figure 2.4: Optimum Dividend Policy (Jyotindra, 2017)<sup>17</sup>

#### 2.5.10 Managed or Compromise Dividend Policy

Dividend policy is mainly of two types: managed dividend policy and residual dividend policy (Kapoor, 2009).<sup>18</sup> If the manager believes in dividend relevance model, he will adopt managed dividend policy. Dividend increases follow earnings growth, but only with a lag (Ross, Westerfield & Jordan, 2008).<sup>19</sup>

#### 2.6 LEGAL ASPECTS OF DIVIDEND POLICY IN BANGLADESH

Dividend policy of a firm has to be evolved within the legal rules and regulations. Legal aspects are significant as they provide framework within which dividend policy is formulated. Provisions relating to dividends in the Companies Act, 1994 and guidelines of the Bangladesh Securities and Exchange Commission are mentioned in the following sections.

#### 2.6.1 Provisions Relating to Dividends in the Companies Act, 1994

Legal provisions regarding dividends in the Companies Act, 1994 lay down an outline within which dividend policy is framed. Section 52 of the Companies Act, 1994 stated that a company, if so authorized by its articles may pay dividend in proportion to the amount paid-up on each share. Table 2.1 presents Clause 96, 97, 98, 99, 100, 101, 102

<sup>18</sup> Kapoor, S., 2009. Impact of dividend policy on shareholders' value: A study of Indian firms. Ph.D. Thesis, Jaypee Institute of Information Technology, Noida.

<sup>&</sup>lt;sup>17</sup> Jyotindra, S. (2017). An analysis of dividend policy of corporate sector in India (Ph.D). Gujarat University.

<sup>19</sup> Ross, S., Westerfield, R., & Jordan, B. (2008). Fundamentals of corporate finance (8th ed., p. 607). New Delhi: Tata McGraw-Hill Publishing Company Limited.

and 103 of Schedule 1 of the Companies Act, 1994 which contained the provisions relating to dividends.

Clause	Legal Requirement
	The company may declare dividends in the general meeting,
Clause 96 of	but no dividends shall exceed the amount recommended by
Schedule 1	the directors. When a dividend is declared, it shall be paid
	within two months from the date of declaration.
Clause 97 of Schedule 1	The directors may from time to time pay to the members such interim dividends as appear to the directors to be justified by the profits of the company.
Clause 98 of Schedule 1	No dividend shall be paid otherwise than out of profits of the year or any other undistributed profits.

Clause 99 of	No amount paid on a share in advance of calls shall be treated
Schedule 1	as paid on the share.
Clause 100 of Schedule 1	Before recommending any dividend, the directors may set aside out of the profits of the company such sums as they think proper as a reserve or reserves.
Clause 101 of Schedule 1	If several persons are registered as joint-holders of any share, any one of them may give effectual receipts for any dividend payable on the share.
Clause 102 of	Notice of any dividend that may have been declared shall be
Schedule 1	given to the persons entitled to share therein.
Clause 103 of	No dividend shall bear interest against the company.
Schedule 1	

Table 2.1: Provisions Relating to Dividends in the Companies Act, 1994

#### 2.6.2 Guidelines of the Bangladesh Securities and Exchange Commission

The Bangladesh Securities and Exchange Commission (BSEC) has made it mandatory for the listed companies not to declare dividends out of their capital reserve accounts and to maintain post-dividend retained earnings positive, and to distribute dividends for a year out of profits made in the year. Besides, the listed companies must explain the reason for declaring stock dividend and the use of such retained amount as capital must be disclosed in the annual report. On June 20, 1918 the BSEC issued fresh guidelines on financial reporting and disclosure. These guidelines were issued with a view to improving disclosure and transparency in the interest of investors and the capital market. According to the new rules, dividend must not be declared out of the capital reserve account or the revaluation reserve account or any unrealized gain or out of profit earned prior to the incorporation of the company. The company must not declare dividend through reducing paid-up capital or through doing anything so that the post-dividend retained earnings become negative or a debit balance. The guidelines also stated that no dividend would be paid other than out of profits of the year or any other undistributed profits.

#### 2.7 DIVIDEND THEORIES

Different theories have been developed on the basis of the relationship between dividend policy and the value of the firm. These theories are grouped into two categories: (a) irrelevance theory and (b) relevance theory. Figure 2.3 presents major dividend theories.

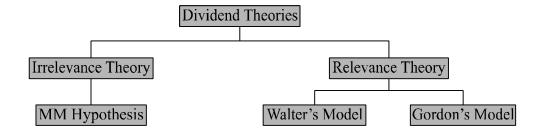


Figure 2.5: Dividend Theories

#### 2.7.1 Irrelevance Theory

Under irrelevance theory, dividend policy has no effect on the share price of the company. Modigliani and Miller made the key contribution to the development of the irrelevance theory of dividend.

#### 2.7.1.1 MM Hypothesis

Miller and Modigliani (MM) are the principal proponents of the irrelevance theory of dividend. They maintain that dividend policy has no effect on the market price of share and the value of the firm. Value of a firm is determined by its basic earning power and its business risk.

#### • Assumptions of MM Hypothesis

MM hypothesis has the following assumptions:

- (i) There are perfect capital markets where investors behave rationally; information is available to all investors without cost; no transaction costs exist; securities are infinitely divisible; there is no single investor who can affect the market price of a share.
- (ii) No taxes exist, and tax rates applicable to capital gains and dividends are not different.
- (iii) Firms maintain fixed investment policy.
- (iv) Risk or uncertainty does not exist.

#### • Proof for MM Hypothesis

MM approach is proved using the formula:

$$P_o = \frac{D_1 + P_1}{(1 + K_e)}$$

#### 2.7.2 Relevance Theory

Relevance theory dictates that dividend decision affects value of a firm as well as stock price. Walter's model and Gordon's model are two major relevance theories. Some researchers follow relevance theory and on that basis some more theories of dividend were discussed in the capital market.

#### 2.7.2.1 Walter's Model

James E. Walter (Walter, 1963)<sup>20</sup> argues that dividend policy almost always affects the value of the firm. Walter's model is based on the relationship between rate of return (r) and cost of capital (k). If r > k, the firm can earn more than what the shareholders could by reinvesting, if the earnings are distributed to them.

# • Assumptions of Walter's Model

Walter's model is based on the assumptions mentioned below:

- 1. Only internal finance is used by the firm;
- 2. Constant return and cost of capital;
- 3. 100 percent payout;
- 4. Constant earnings per share and dividend;
- 5. Long life of the firm.

# • Proof of Walter's Model

Walter developed the formula for determining the market price of a share.

$$P = \frac{D + \frac{\tilde{r}}{K_e}(E - D)}{K_e}$$

Above given formula indicates that the market price per equity share is equal to the present value of an infinite stream of dividends plus the present value of an infinite stream of returns from retained earnings. Symbolically,

### 2.7.2.2 Gordon's Model

This is another popular model which argues that dividends are relevant, and dividend decision of a firm affects its value. It was proposed by Myron Gordon (Gordon, 1959).<sup>21</sup> According to this model a firm's share price is dependent on dividend payout ratio.

# Assumptions of Gordon's Model

Gordon's model has the following assumptions:

- 1. All equity firm.
- 2. Constant cost of capital and returns.

<sup>&</sup>lt;sup>20</sup> Walter, J. (1963). Dividend policy: Its influence on the value of the enterprise. *The Journal of Finance*, 18(2), 280-291. doi: 10.1111/j.1540-6261.1963.tb00724.x <sup>21</sup> Gordon, M. (1959). Dividends, earnings and stock prices. *The Review of Economics and Statistics*, 41(1), 99-105.

- 3. Perpetual life of the firm.
- 4. No taxes exit.
- 5. Constant retention ratio (g = br).
- 6. Cost of capital is greater than growth rate  $(K_e > br)$ .

# • Proof of Gordon's Model

The following formula is used to prove Gordon's model:

$$P = \frac{E(1-b)}{K_e - br}$$

Where,

P = Price of a share

E = Earnings per share

1 - b = Dividend payout ratio

K<sub>e</sub> = Capitalization rate

br = Growth rate

# 7.2.2.3 Bird-In-The-Hand Theory

This theory, developed by Lintner and Gordon, connotes that investors prefer current cash dividend to future capital gain. As per bird-in-the-hand theory, investors are risk averse and therefore, they value present dividend more than capital gain. Hence, dividend policy is relevant and it affects stock price in the market.

# 7.2.2.4 Signaling Theory

Signaling theory was presented by Bhattacharya (1979), Miller and Rock (1985) and John and Williams (1985). In the presence of information asymmetry between a firm's managers and outside investors, the signaling hypothesis predicts that dividends can be used as a mechanism to convey information to the market about the true value of the firm. Increase or constant dividends signal positive information about the future of the firm. Therefore, when dividend is paid, share prices rise in the market, whereas nonpayment or decrease in dividend provides negative message about the future of the firm and share prices are affected negatively in the market.

# 7.2.2.5 Agency Theory of Dividend

This theory is based on the assumption that there prevails a conflict between the interest of shareholders and management. Corporate managers try to maximize their incentives while shareholders are interested in maximizing their wealth. Shareholders believe that more dividends should be paid out of the profit as more profit may be invested into the unprofitable projects because of personal interest of the management. This is known as agency problem. Generous dividend policy may mitigate agency problem. Payment of regular dividend increases the trust of investors on the company's management and thus stock price of firms are affected positively in the market.

### 2.8 CONCLUSION

Dividend policy is very important in the earnings management of companies. This chapter discusses different types of dividends that firms pay as well as different types of dividend policy that firms follow. Factors affecting dividend policy and two schools of thought pertaining to dividend theory have also been discussed. However, corporate dividend theories have puzzled financial analysts and academicians for several decades. Consequently, much more empirical and theoretical research on dividend policy is required with sincere effort before a consensus can be reached.

# CHAPTER 3 LITERATURE REVIEW

### 3.1 INTRODUCTION

The subject of corporate dividend policy has captivated economists for a long time, resulting in intensive theoretical modeling and empirical examinations (Frankfurter & Wood Jr., 2002).<sup>22</sup> Since the 1960s, there is an ongoing debate on dividend policy, which remains a controversial issue till today. For decades, the academics have not been able to agree on any convincing explanation. This chapter presents the major empirical studies on corporate dividend policy.

# 3.2 STUDIES ON FOREIGN CONTEXT

The literature on dividend policy has created a huge extent of theoretical and empirical research, mainly after the publication of the dividend irrelevance theory of Miller and Modigliani (1961). No common consonance has yet appeared after quite a lot of decades of research, and researchers frequently differ even about the same empirical evidence (Al-Malkawi, Rafferty & Pillai, 2010).<sup>23</sup> Baker, Powell, and Veit (2002) stated that dividend policy may differ considerably from one company to another as various market imperfections affect firms differently.<sup>24</sup>

# 3.2.1 Studies on the Determinants of Dividend Policy

Dividend policy is one of the most unsettled topics in contemporary corporate finance. Different studies were conducted to resolve the dividend puzzle, yet the outcomes are indecisive as to what determines the corporate dividend policy. Academics have advanced several hypothetical models detailing different factors of dividend policy.

The early attempt to explain dividend behavior of companies has been credited to Lintner (1956) who found that the major changes in earnings with existing dividend rates are the most important determinant of the firm's dividend decisions. Lintner proved that current

<sup>&</sup>lt;sup>22</sup> Frankfurter, G., & Wood Jr., B. (2002). Dividend policy theories and their empirical tests. *International Review of Financial Analysis*, 11(2), 111-138. doi: 10.1016/s1057-5219(02)00071-6

<sup>&</sup>lt;sup>23</sup> Al-Malkawi, H., Rafferty, M., & Pillai, R. (2010). Dividend policy: A review of theories and empirical evidence. *International Bulletin of Business Administration*, 9(2010), 171-200.

<sup>&</sup>lt;sup>24</sup> Baker, H., Powell, G., & Veit, E. (2002). Revisiting the dividend puzzle: Do all the pieces now fit?. Review of Financial Economics, 11(4), 241-261. doi: 10.1016/s1058-3300(02)00044-7

profits and lagged dividends influence the dividend policy of companies.<sup>25</sup> Subsequently, Fama and Babiak (1968) examined several alternative models for explaining dividend behavior in line with the Lintner's proposition that managers increase dividends once they are reasonably certain to maintain them permanently.<sup>26</sup>

Oloidi and Adeyeye (2014) examined the variables that determine dividend per share (DPS) in firms listed on the Nigerian Stock Exchange (NSE). They concluded that EPS, DPSt-1 and payout ratio are the major variables that influence the decision of the firms to increase or decrease dividend per share.<sup>27</sup>

Wadhwa (2019) used twelve-year panel data from 2006 –2018 of BSE-500 index in India for scrutinizing the firm-level dynamics persuading the dividend decisions of companies in a developing economy. Results revealed that profitability, risk, size, ownership, and financial leverage were found to be the major determinants of dividend policies of firms.<sup>28</sup>

Hooshyar, Mohammadi and Valizadeh (2017) examined the factors that affect dividend policy of firms listed on Tehran Stock Exchange during the year 2009 to 2014. The findings of the study revealed that profitability, current ratio and financial leverage have a significant effect on dividend policy.<sup>29</sup>

Baker and Powell (2012) showed that the most important determinants of dividends are the stability of earnings and the level of current and expected earnings of companies listed on the Indonesian Stock Exchange (IDX).<sup>30</sup>

Aggarwal and Dow (2012) reconfirmed that dividends in Japan are positively related to firm size, profitability, and investment opportunities, and negatively to firm risk.<sup>31</sup>

<sup>&</sup>lt;sup>25</sup> Lintner, J. (1956). Distribution of incomes of corporations among dividends, retained earnings, and taxes. The American Economic Review, 46(2), 97-113.

<sup>&</sup>lt;sup>26</sup> Fama, E., & Babiak, H. (1968). Dividend policy: An empirical analysis. Journal of the American Statistical Association, 63(324), 1132-1161.

<sup>&</sup>lt;sup>27</sup> Oloidi, A., & Adeyeye, P. (2014). Determinants of dividend per share: Evidence from the Nigerian Stock Exchange. International Journal of Economics and Empirical Research, 2(12), 496-501.

Wadhwa, R. (2019). What factors drive the dividend policy of Indian companies?. Indian Journal of Research in Capital Markets, 6(3), 37. doi: 10.17010/ijrcm/2019/v6/i3/148882

<sup>&</sup>lt;sup>29</sup> Hooshyar, A., Mohammadi, M., & Valizadeh, A. (2017). Investigate the factors affecting dividend policy in listed firms on Tehran Stock Exchange. IOSR Journal of Economics and Finance, 08(02), 60-62. doi: 10.9790/5933-0802026062

30 Baker, H., & Powell, G. (2012). Dividend policy in Indonesia: Survey evidence from executives. Journal of Asia Business Studies, 6(1), 79-92. doi:

<sup>10.1108/15587891211191399</sup> 

Kozul and Mihalina (2013) empirically examined the determinants of the dividend size of Croatian companies and showed that the size of dividends is significantly influenced by profitability and debt level.<sup>32</sup>

Michaely and Roberts (2011) showed that ownership structure and incentives play major roles in formulating dividend policies.<sup>33</sup>

Baker and Weigand (2015) stated that certain determinants of cash dividends are constantly significant over time in modeling dividend policies, which include the stability of past dividends as well as current and anticipated earnings.<sup>34</sup>

Baker and Smith (2006) empirically showed that the sample firms uphold a long-standing dividend payout ratio and use long-term earnings estimates in making dividend decision.<sup>35</sup>

Gergely and Peter (2009) showed that companies having lower beta usually pay greater dividends, while riskier stocks have a lesser payout ratio in Hungarian stock-market.<sup>36</sup>

Amidu and Abor (2006) investigated the determinants of dividend payout ratio of listed companies in Ghana. The results show significant positive impact of profitability and cash flow but negative impact of market-to-book-value on dividend payout ratio.<sup>37</sup>

Healy and Modigliani (1990) examined whether managers use inflation accounting data in making dividend decisions. They found that aggregate dividend changes are related to aggregate inflation adjustments, but no such relation exists when using individual firm

<sup>&</sup>lt;sup>31</sup> Aggarwal, R., & Dow, S. (2012). Dividends and strength of Japanese business group affiliation. *Journal of Economics and Business*, 64(3), 214-230. doi: 10.1016/j.jeconbus.2012.01.003

<sup>32</sup> Kozul, A., & Mihalina, E. (2013). The determinants of the dividend size in Croatia. UTMS Journal of Economics, 4(2), 143-151.

<sup>&</sup>lt;sup>33</sup> Michaely, R., & Roberts, M. (2011). Corporate dividend policies: Lessons from private firms. *The Review of Financial Studies*, 25(3), 711-746. doi: 10.1093/rfs/hhr108

<sup>34</sup> Baker, H., & Weigand, R. (2015). Corporate dividend policy revisited. Managerial Finance, 41(2), 126-144. doi: 10.1108/mf-03-2014-0077

<sup>35</sup> Baker, H., & Smith, D. (2006). In search of a residual dividend policy. Review of Financial Economics, 15(1), 1-18. doi: 10.1016/j.rfe.2004.10.002

<sup>&</sup>lt;sup>36</sup> Gergely, F., & Peter, J. (2009). Lower risks - higher dividends? Examining the relation of beta to dividend proportion on The Budapest Stock Exchange, 1997-2007. Economic Review. 56(4), 322-342.

<sup>&</sup>lt;sup>37</sup> Amidu, M., & Abor, J. (2006). Determinants of dividend payout ratios in Ghana. The Journal of Risk Finance, 7(2), 136-145. doi: 10.1108/15265940610648580

data. Managers therefore, at least partially, consider the effects of inflation in making decisions to change their firms' dividends.<sup>38</sup>

Patra, Poshakwale and Ow-Yong (2012) fond that size, profitability and liquidity factors enhance the chance to pay dividends. Conversely, investment opportunities, financial leverage and business risk reduce the possibility to pay dividends of listed firms in Greece.<sup>39</sup>

Aivazian, Booth and Cleary (2003) found from the regression results that dividends are considerably less sensitive to previous dividends.<sup>40</sup>

Badu (2013) found that age of the firm, collateral and liquidity are the main determinants of dividend policy of financial institutions in Ghana.<sup>41</sup>

Abdulkadir, Abdullah and Woei-Chyuan (2015) found that Nigerian listed firms with high leverage and low cash flows are more probable to skip payments of dividend during the global financial crisis. They also found support for past dividends as a reference point for current dividend decisions in both the crisis and non-crisis periods.<sup>42</sup>

Likitwongkajon (2019) verified the determinants of dividend payment in listed firms in the Stock Exchange of Thailand (SET). The results found that firm profitability, firm size, cash flow from operation, dividend payment and dividend yield had a positively significant effect to future dividend yield.<sup>43</sup>

Padmavathi (2016) stated that Power sector has consistent dividend policy in comparison with Information Technology sector in India.<sup>44</sup>

<sup>38</sup> Healy, P., & Modigliani, F. (1990). Dividend decisions and earnings. Journal of Accounting, Auditing & Finance, 5(1), 3-25.

<sup>&</sup>lt;sup>39</sup> Patra, T., Poshakwale, S., & Ow-Yong, K. (2012). Determinants of corporate dividend policy in Greece. *Applied Financial Economics*, 22(13), 1079-1087. doi: 10.1080/09603107.2011.639734

<sup>&</sup>lt;sup>40</sup> Aivazian, V., Booth, L., & Cleary, S. (2003). Dividend policy and the organization of capital markets. *Journal of Multinational Financial Management*, *13*(2), 101-121. doi: 10.1016/s1042-444x(02)00038-5

 <sup>&</sup>lt;sup>41</sup> Badu, E. (2013). Determinants of dividend payout policy of listed financial institutions in Ghana. Research Journal of Finance and Accounting, 4(7), 185-190.
 <sup>42</sup> Abdulkadir, R., Abdullah, N., & Woei-Chyuan, W. (2015). Dividend policy changes in the pre-, mid-, and post-financial crisis: evidence from the Nigerian stock

<sup>&</sup>lt;sup>43</sup> Likitwongkajon, N. (2019). Determinants of dividend payment: Evidence from the Stock Exchange of Thailand. *Journal of Business, Economics and* 

Communications, 14(1), 122-135.

<sup>&</sup>lt;sup>44</sup> Padmavathi, U. (2016). Dividend policies in Indian corporate sector: A special focus on Information Technology and Power Industries. *Paripex - Indian Journal of Research*, 5(10), 212-214.

Yegon, Cheruiyot and Sang (2014) ascertained that there is a significant positive relationship between dividend policy and profitability, investments as well as earnings per share of manufacturing companies in Kenya.<sup>45</sup>

Tanjung (2017) investigated the determinants of dividend policy in Indonesia Stock Exchange and showed that profitability, leverage, and institutional ownership have negative impact on the firm's dividend policy. On the other hand, systematic risk, firm size, and board of directors have no impact to the firm's dividend policy. <sup>46</sup>

Ahmed, Rafay and Ahmed (2018) investigated the difference between the dividend payout policy of Islamic banks and conventional banks in Pakistan for a period from 2012 to 2016. They concluded that the factors like liquidity and financial leverage should be taken into account, as these are important factors for mangers and investors in evaluating the performance of the Islamic Banking Industry.<sup>47</sup>

Gladys and Gachunga (2015) stated that manufacturing companies listed in Nairobi Stock Exchange with high investment opportunity follow a low dividend payout policy and companies having high financial leverage and implied financial risk incline to evade paying high dividends.<sup>48</sup>

Lambert, Lanen and Larcker (1989) suggested that the special incentives of managers can affect some facets of the corporate dividend policy.<sup>49</sup>

Deshmukh, Goel and Howe (2013) showed that the extent of the progressive market response to a dividend-increase declaration is higher for companies with greater ambiguity about CEO overconfidence.<sup>50</sup>

<sup>&</sup>lt;sup>45</sup> Yegon, C., Cheruiyot, J., & Sang, J. (2014). Effects of dividend policy on firm's financial performance: Econometric analysis of listed manufacturing firms in Kenya. *Research Journal of Finance and Accounting*, 5(12), 136-144.

<sup>&</sup>lt;sup>46</sup> Tanjung, G. (2017). The determinants of dividend policy: A study of financial industry in Indonesia. *Jurnal Keuangan Dan Perbankan*, 21(4), 562-574. doi: 10.26905/jkdp.v21i4.1521

<sup>&</sup>lt;sup>47</sup> Ahmed, F., Rafay, A., & Ahmed, A. (2018). Dividend payout policy of conventional banking and islamic banking in Pakistan. *Journal of Islamic Economics*, 10(1), 135-152. doi: 10.15408/aiq.v10i1.6103

<sup>&</sup>lt;sup>48</sup> Gladys, S., & Gachunga, H. (2015). Effect of dividend policy on capital budgeting decision in manufacturing companies listed in Nairobi Stock Exchange. *The Strategic Journal of Business & Change Management*, 2(96), 1406-1425.

<sup>&</sup>lt;sup>49</sup> Lambert, R., Lanen, W., & Larcker, D. (1989). Executive stock option plans and corporate dividend Policy. *The Journal of Financial and Quantitative Analysis*, 24(4), 409-425. doi: 10.2307/2330976

Alli, Khan and Ramirez (1993) established robust support for the role of managerial thought in affecting the firm's payout policy; specifically, firms that maintain stable dividend policies and firms that enjoy financial flexibility pay higher dividends.<sup>51</sup>

Stacescu (2006) found that profitability, growth opportunities, riskiness, and price volatility are the significant determinants of dividend policy of Swiss companies. Dividend fluctuations are more closely related to previous and present rather than future net income growth.<sup>52</sup>

Shevlin (1982) provided Australian evidence on the validity of the Lintner (1956) dividend model and showed that basic Lintner model performs better than some other dividend models examined. It is suggested that corporate dividends are a function of present and previous earnings.<sup>53</sup>

Hsu, Wang and Wu (1998) showed that earnings data explain dividend vibrant behavior better than market price of shares.<sup>54</sup>

Adaoglu (2000) analyzed empirically whether the companies listed in Istanbul Stock Exchange (ISE) follow stable cash dividend policies in a regulatory environment that imposed mandatory dividend policies. The empirical results show that the ISE companies follow unstable cash dividend policies and mainly EPS determines the amount of cash dividends.<sup>55</sup>

Bushra and Mirza (2015) investigated the significant determinants of firms' dividend policy through several sectors in Pakistan. It is found that profitable companies incline to declare more dividends than unprofitable companies. Size of a company has a negative relationship with the dividend payout ratio and dividend yield. Concentration of

<sup>&</sup>lt;sup>50</sup> Deshmukh, S., Goel, A., & Howe, K. (2013). CEO overconfidence and dividend policy. *Journal of Financial Intermediation*, 22(3), 440-463. doi: 10.1016/j.jfi.2013.02.003

<sup>&</sup>lt;sup>51</sup> Alli, K., Khan, A., & Ramirez, G. (1993). Determinants of corporate dividend policy: A factorial analysis. *The Financial Review*, 28(4), 523-547. doi: 10.1111/j.1540-6288.1993.tb01361.x

 <sup>52</sup> Stacescu, B. (2006). Dividend Policy in Switzerland. Financial Markets and Portfolio Management, 20(2), 153-183. doi: 10.1007/s11408-006-0013-7
 53 Shevlin, T. (1982). Australian corporate dividend policy: Empirical evidence. Accounting & Finance, 22(1), 1-22. doi: 10.1111/j.1467-629x.1982.tb00127.x

<sup>54</sup> Hsu, J., Wang, X., & Wu, C. (1998). The role of earnings information in corporate dividend decisions. *Management Science*, 44(12-part-2), S145-S282. doi: 10.1287/mnsc.44.12.s173

<sup>&</sup>lt;sup>55</sup> Adaoglu, C. (2000). Instability in the dividend policy of the Istanbul Stock Exchange (ISE) corporations: Evidence from an emerging market. *Emerging Markets Review*, 1(3), 252-270. doi: 10.1016/s1566-0141(00)00011-x

ownership has a negative impact on the dividend payout ratio. Sales growth is positively related to dividend yield.<sup>56</sup>

Al-Twaijry (2007) identified that book value and cash per share significantly and positively affect both dividend per share and payout ratio of listed companies in Kuala Lumpur Stock Exchange.<sup>57</sup>

Cheng, Fung and Leung (2008) found transparency and good governance in the Hong Kong stock market through testing cash channeling hypothesis of directors.<sup>58</sup>

Cohen and Yagil (2009) found a higher dividend yield and a higher pay-out ratio for financially distressed firms than for financially stable firms. They also found that financially distressed firms tend to change the dividend per share more rapidly than stable firms. Furthermore, these firms' dividends depend more on earnings than do the dividends of stable companies. Stable firms, in contrast, prefer paying dividends that are less dependent upon earnings.<sup>59</sup>

Bar-Yosef and Huffman (1986) observed that the extent of the declared dividend is an increasing function of projected cash flow. It is also shown that higher uncertainty leads to lower payout ratio.<sup>60</sup>

Anand (2004) found in her study that majority of the firms of corporate India have designed dividend payout ratio and dividend changes follow variation in the long-standing maintainable earnings. This is in conformity with Lintner's model on dividend policy.<sup>61</sup>

<sup>&</sup>lt;sup>56</sup> Bushra, A., & Mirza, N. (2015). The determinants of corporate dividend policy in Pakistan. *The Lahore Journal of Economics*, 20(2), 77-98. doi: 10.35536/lie.2015.v20.i2.a4

<sup>&</sup>lt;sup>57</sup> Al-Twaijry, A. (2007). Dividend policy and payout ratio: Evidence from the Kuala Lumpur Stock Exchange. *The Journal of Risk Finance*, 8(4), 349-363. doi: 10.1108/15265940710777306

<sup>&</sup>lt;sup>58</sup> Cheng, L., Fung, H., & Leung, T. (2008). What drives the cash dividend policy of the poorly performing firms in Hong Kong?. *Review of Pacific Basin Financial Markets and Policies*, 11(03), 347-361. doi: 10.1142/s0219091508001386

<sup>&</sup>lt;sup>59</sup> Cohen, G., & Yagil, J. (2009). Why do financially distressed firms pay dividends?. *Applied Economics Letters*, 16(12), 1201-1204. doi: 10.1080/17446540802389057

<sup>&</sup>lt;sup>60</sup> Bar-Yosef, S., & Huffman, L. (1986). The information content of dividends: A signaling approach. The Journal of Financial and Quantitative Analysis, 21(1), 47-58, doi: 10.2307/2330990

<sup>&</sup>lt;sup>61</sup> Anand, M. (2004). Factors influencing dividend policy decisions of corporate India. *Journal of Applied Finance*, 10(2), 5-16.

DeAngelo, DeAngelo and Skinner (2008) stated that behavioral biases at the managerial level and the individual preferences of controlling shareholders probably have a significant effect on corporate payout policy.<sup>62</sup>

Barclay and Smith (1988) stated that the buyback of shares has no domination over cash dividends because costs of buyback of shares do not arise in case of cash dividends.<sup>63</sup>

Brav, Graham, Harvey and Michaely (2005) found that firms maintain the dividend level at par with investment decisions and future earnings still affects dividend policy as in the study of Lintner (1956).<sup>64</sup>

Yusof and Ismail (2016) found that earnings, debt, size, investment and large shareholder have a significant influence on dividend policy of listed companies in Malaysia, with earnings, firm size and investment revealed to have a positive significant effect, while debt and large shareholders have a negative significant effect.<sup>65</sup>

Singhania and Gupta (2012) investigated the validity of the different views on the determinants of dividend policy in India. The findings of the study showed that firm's size, growth of the firms and investment opportunities are significant determinants of dividend policy of corporate sectors in India.<sup>66</sup>

Aivazian, Booth and Cleary (2003) found that dividends are explained by profitability, debt, and the market to book value ratio in the companies of both US as well as emerging markets.<sup>67</sup>

Denis and Osobov (2008) stated that in the United States, United Kingdom, Germany, Canada, France, and Japan, the tendency to pay dividends is greater amongst larger and

63 Barclay, M., & Smith, C. (1988). Corporate payout policy. *Journal of Financial Economics*, 22(1), 61-82. doi: 10.1016/0304-405x(88)90022-0

<sup>62</sup> DeAngelo, H., DeAngelo, L., & Skinner, D. (2008). Corporate payout policy. Foundations and Trends® in Finance, 3(2-3), 95-287.

<sup>&</sup>lt;sup>64</sup> Brav, A., Graham, J., Harvey, C., & Michaely, R. (2005). Payout policy in the 21st century. *Journal of Financial Economics*, 77(3), 483-527. doi: 10.1016/j.jfineco.2004.07.004

<sup>65</sup> Yusof, Y., & Ismail, S. (2016). Determinants of dividend policy of public listed companies in Malaysia. Review of International Business and Strategy, 26(1), 88-99. doi: 10.1108/ribs-02-2014-0030

<sup>66</sup> Singhania, M., & Gupta, A. (2012). Determinants of corporate dividend policy: A Tobit model approach. Vision: The Journal of Business Perspective, 16(3), 153-162. doi: 10.1177/0972262912460152

<sup>&</sup>lt;sup>67</sup> Aivazian, V., Booth, L., & Cleary, S. (2003). Do emerging market firms follow different dividend policies from U.S. firms?. *Journal of Financial Research*, 26(3), 371-387. doi: 10.1111/1475-6803.00064

more profitable companies and those for which retained earnings capture a big percentage of total equity.<sup>68</sup>

Rój (2019) verified profitability, measures of size, investment opportunities, leverage, and liquidity as the determinants of dividend policy of non-financial companies listed on the Warsaw Stock Exchange (WSE).<sup>69</sup>

Ho (2003) empirically showed that size of firms has positive impact on dividend policy in Australia while dividend policy is positively affected by liquidity and negatively by risk in Japan. Industry effects are statistically significant in both Australia and Japan.<sup>70</sup>

Omet (2004) showed that Jordanian firms adopt stable cash dividend policies.<sup>71</sup>

Olson and McCann (1994) empirically showed that some firms use dividends for signaling, some follow a residual policy, and some firms use both signaling and a residual policy.<sup>72</sup>

Mirza and Afza (2010) showed that managerial ownership, individual ownership, operating cash flow and size are the most significant determinants of dividend behavior in the emerging economy of Pakistan.<sup>73</sup>

Al-Ajmi and Hussain (2011) showed that lagged dividend payments, profitability, cash flows and life cycle are determinants of cash dividend payments of Saudi firms. Zakat is statistically significant in explaining dividend decisions of companies.<sup>74</sup>

Afza and Mirza (2011) found the nonlinear relationship of the firm's age with dividend policy of companies listed at Karachi Stock Exchange (KSE).<sup>75</sup>

<sup>&</sup>lt;sup>68</sup> Denis, D., & Osobov, I. (2008). Why do firms pay dividends? International evidence on the determinants of dividend policy. *Journal of Financial Economics*, 89(1), 62-82. doi: 10.1016/j.jfineco.2007.06.006

<sup>69</sup> Rój, J. (2019). The determinants of corporate dividend policy in Poland. Ekonomika, 98(1), 96-110. doi: 10.15388/ekon.2019.1.6

<sup>&</sup>lt;sup>70</sup> Ho, H. (2003). Dividend policies in Australia and Japan. *International Advances in Economic Research*, 9(2), 91-100. doi: 10.1007/bf02295710

<sup>71</sup> Omet, G. (2004). Dividend policy behaviour in the Jordanian capital market. *International Journal of Business*, 9(3), 287-299.

<sup>&</sup>lt;sup>72</sup> Olson, G., & McCann, P. (1994). The linkages between dividends and earnings. *The Financial Review*, 29(1), 1-22. doi: 10.1111/j.1540-6288.1994.tb00811.x <sup>73</sup> Mirza, H., & Afza, T. (2010). Ownership structure and cash flows as determinants of corporate dividend policy in Pakistan. *International Business Research*, 3(3), 210-221. doi: 10.5539/ibr.v3n3p210

<sup>&</sup>lt;sup>74</sup> Al-Ajmi, J., & Hussain, H. (2011). Corporate dividends decisions: Evidence from Saudi Arabia. The Journal of Risk Finance, 12(1), 41-56. doi: 10.1108/15265941111100067

Musiega, Alala, Douglas, Christopher and Robert (2013) showed that return on equity, current earnings and growth activities of the companies are positively correlated with dividend payout of non-financial firms listed on Nairobi Securities Exchange.<sup>76</sup>

Baker, Dewasiri, Yatiwelle Koralalage and Azeez (2019) found that earnings, firm size, past dividends, investment opportunities, industry impact, corporate governance, free cash flow, profitability, concentrated ownership, net working capital and investor preference are the main determinants of dividend of Sri Lankan companies.<sup>77</sup>

Jabbouri (2016) documented that dividend policy is positively related to size, current profit, and liquidity and negatively associated with leverage, growth, free cash flow and the state of the economy in MENA emerging markets.<sup>78</sup>

Afza and Mirza (2011) showed that dividend payouts are positively affected by growth opportunities, proportion of shares held by insurance companies and profitability while negatively affected by leverage of the companies listed on Karachi Stock Exchange (KSE).<sup>79</sup>

Aqel (2016) showed that growth, risk, and profitability have positive and statistically significant relationship with dividend payout ratio of companies listed on Palestine Securities Exchange.<sup>80</sup>

Sahi and Nancy (2018) empirically showed that profitability and P/B value ratio had a significant positive impact while risk had a significant negative impact on the dividend policy of the public sector banks in India.<sup>81</sup>

<sup>&</sup>lt;sup>75</sup> Afza, T., & Mirza, H. (2011). Do mature companies pay more dividends? Evidence from Pakistani Stock Market. *Mediterranean Journal of Social Sciences*, 2(2), 152-161.

<sup>&</sup>lt;sup>76</sup> Musiega, M., Alala, O., Douglas, M., Christopher, M., & Robert, E. (2013). Determinants of dividend payout policy among non-financial firms on Nairobi Securities Exchange, Kenya. *International Journal of Scientific & Technology Research*, 2(10), 253-266.

<sup>&</sup>lt;sup>77</sup> Baker, H., Dewasiri, N., Yatiwelle Koralalage, W., & Azeez, A. (2019). Dividend policy determinants of Sri Lankan firms: A triangulation approach. *Managerial Finance*, 45(1), 2-20. doi: 10.1108/mf-03-2018-0096

<sup>&</sup>lt;sup>78</sup> Jabbouri, I. (2016). Determinants of corporate dividend policy in emerging markets: Evidence from MENA stock markets. *Research in International Business and Finance*, 37, 283-298. doi: 10.1016/j.ribaf.2016.01.018

<sup>&</sup>lt;sup>79</sup> Afza, T., & Mirza, H. (2011). Institutional shareholdings and corporate dividend policy in Pakistan. *African Journal of Business Management*, 5(22), 8941-8951. doi: 10.5897/ajbm11.564

<sup>&</sup>lt;sup>80</sup> Aqel, S. (2016). An empirical investigation of corporate dividend payout policy in an emerging market: Evidence from Palestine Securities Exchange. *Research Journal of Finance and Accounting*, 7(6), 7-16.

Gupta (2017) showed that the ownership structure, debt/equity, investment policy, liquidity, dividend yield, shareholder' returns, taxation, and growth prospects are the important determinants of dividend policy of Indian companies.<sup>82</sup>

Kaźmierska-Jóźwiak (2015) found that profitability and leverage affect dividend payout ratio of non-financial firms listed on Warsaw Stock Exchange negatively. Finding of the study leads to the conclusion that Polish non-financial companies listed on Warsaw Stock Exchange follow the same determinants of dividend policy as followed by the developed markets.<sup>83</sup>

Basse and Reddemann (2011) showed that inflation and dividend payments have a positive relationship.<sup>84</sup>

Farooq and Ahmed (2019) showed that dividend policies adopted by the US firms are sensitive to presidential elections. They used a dataset of six presidential elections (1996 –2016) and showed that dividend payout ratios of companies were higher during the election years in compared with non-election years. Furthermore, their results suggest that higher are the economic uncertainties (uncertainties related to monetary policies, fiscal policies, and national security policies) in the years of election, higher are the dividend payout ratios.<sup>85</sup>

Hung, Ha and Binh (2018) identified that firm size and return on total assets have a positive and significant impact on dividend policy of firms listed on the Vietnam securities market. However, there is a negative impact of revenue growth rate on the dividend payout ratio of the listed companies of Vietnam.<sup>86</sup>

<sup>81</sup> Sahi, A., & Nancy. (2018). Dividend policy determinants for public sector banks in India: A panel data approach. *International Journal of Management Studies*, V(4(5), 56-66. doi: 10.18843/ijms/v5i4(5)/08

<sup>&</sup>lt;sup>82</sup> Gupta, V. (2017). Factors determining the dividend policy of a company. Foundation for Organisational Research & Education, 35(3), 21+.

<sup>83</sup> Kaźmierska-Jóźwiak, B. (2015). Determinants of dividend policy: Evidence from Polish listed companies. *Procedia Economics and Finance*, 23, 473-477. doi: 10.1016/s2212-5671(15)00490-6

<sup>84</sup> Basse, T., & Reddemann, S. (2011). Inflation and the dividend policy of US firms. Managerial Finance, 37(1), 34-46. doi: 10.1108/03074351111092139

<sup>85</sup> Farooq, O., & Ahmed, N. (2019). Dividend policy and political uncertainty: Evidence from the US presidential elections. Research in International Business and Finance, 48, 201-209. doi: 10.1016/j.ribaf.2019.01.003

<sup>86</sup> Hung, D., Ha, N., & Binh, D. (2018). Factors influencing the dividend policy of Vietnamese enterprises. Asian Journal of Finance & Accounting, 10(2), 16-29. doi: 10.5296/ajfa.v10i2.13651

Jaara, Alashhab and Jaara (2018) stated that mature, large and highly profitable companies in Jordan pay more and consistent dividends.<sup>87</sup>

Yusuf (2019) showed that liquidity and growth opportunities are the common predictors of dividend policy of firms listed in Nigerian Stock Exchange in the pre-crisis, crisis and post-crisis periods.<sup>88</sup>

Adu-Boanyah, Ayentimi and Frank (2013) empirically showed that dividend payout is a negative function of prior year's dividend and positively related to profitability and size of the firms.<sup>89</sup>

Naceur, Goaied and Belanes (2006) demonstrated that Tunisian firms rely on both current earnings and past dividends to fix their dividend payment. It is found that dividends tend to be more sensitive to current earnings than prior dividends. Further, liquidity of stock market and size have negative impact on the payment of dividend.<sup>90</sup>

Arif and Akbarshah (2013) found that profitability, tax, size and investment opportunities are the most significant determinants of dividend policy of non-financial sector of Pakistan.<sup>91</sup>

Zheng and Ashraf (2014) investigated the relations between three dimensions of national culture and dividend policies of banks taking a sample of banks from 51 countries during 1998 – 2007. They found significant influence of the three dimensions of national culture on bank dividend policies.<sup>92</sup>

<sup>&</sup>lt;sup>87</sup> Jaara, B., Alashhab, H., & Jaara, O. (2018). The determinants of dividend policy for non-financial companies in Jordan. *International Journal of Economics and Financial Issues*, 8(2), 198-209.

<sup>88</sup> Yusuf, R. (2019). Factors influencing dividend payout policy of firms listed on the Nigerian Stock Exchange. Advances in Economics and Business, 7(6), 256-265. doi: 10.13189/aeb.2019.070602

<sup>&</sup>lt;sup>89</sup> Adu-Boanyah, E., Ayentimi, D., & Frank, O. (2013). Determinants of dividend payout policy of some selected manufacturing firms listed on the Ghana Stock Exchange. *Research Journal of Finance and Accounting*, 4(5), 49-61.

<sup>&</sup>lt;sup>90</sup> Naceur, S., Goaied, M., & Belanes, A. (2006). On the determinants and dynamics of dividend policy. *International Review of Finance*, 6(1-2), 1-23. doi: 10.2139/ssrn.889330

<sup>&</sup>lt;sup>91</sup> Arif, A., & Akbarshah, F. (2013). Determinants of dividend policy: A sectorial analysis from Pakistan. *International Journal of Business and Behavioral Sciences*, 3(9), 16-33.

<sup>92</sup> Zheng, C., & Ashraf, B. (2014). National culture and dividend policy: International evidence from banking. *Journal of Behavioral and Experimental Finance*, 3, 22-40. doi: 10.1016/j.jbef.2014.07.002

Baker, Kilincarslan and Arsal (2018) stated that managers of Borsa Istanbul (BIST) adopt analogous factors and patterns of dividend policy as managers in more developed countries.<sup>93</sup>

Kilincarslan (2017) showed that current earnings and lagged dividends are taken as the basis to determine cash dividend payments of BIST companies in line with Lintner's model.<sup>94</sup>

Kuzucu (2015) showed that there is a significant positive relationship between cash dividends and earnings. Sustainable change in earnings, stability and level of future earnings, and the desire to distribute a proportion of earnings to shareholders are the common determinants of dividend policy of non-financial firms listed on Istanbul Stock Exchange.<sup>95</sup>

Vanteeva and Hickson (2018) stated that dividend payout policies in non-market economies like Russia may be driven by non-traditional determinants, such as the state's overall industrial strategy.<sup>96</sup>

He, Ng, Zaiats and Zhang (2017) showed that dividend payers manage earnings less than dividend non-payers. Further, dividend payers manage earnings less when they issue equity following dividend payments.<sup>97</sup>

Chesini and Staniszewska (2017) empirically showed that dividend yield and liquidity commonly determine dividend payout policy of companies in Poland, while profitability and leverage greatly influence dividend payout policy of companies in Italy.<sup>98</sup>

<sup>93</sup> Baker, H., Kilincarslan, E., & Arsal, A. (2018). Dividend policy in Turkey: Survey evidence from Borsa Istanbul firms. Global Finance Journal, 35(C), 43-57. doi: 10.1016/j.gfj.2017.04.002

<sup>&</sup>lt;sup>94</sup> Kilincarslan, E. (2017). Cash dividend payments: A study of financial sector in Turkey. *Journal of Banking and Insurance Research*, 2(11), 92-117.

<sup>95</sup> Kuzucu, N. (2015). A survey of managerial perspective on corporate dividend policy: Evidence from Turkish listed firms. *International Journal of Research in Business And Social Science*, 4(2), 1-19. doi: 10.20525/ijrbs.v4i2.22

<sup>&</sup>lt;sup>96</sup> Vanteeva, N., & Hickson, C. (2018). The idiosyncratic pattern of Russian corporate dividend policy during its formative era. *Annals of Public and Cooperative Economics*, 90(3), 535-554. doi: 10.1111/apce.12215

<sup>&</sup>lt;sup>97</sup> He, W., Ng, L., Zaiats, N., & Zhang, B. (2017). Dividend policy and earnings management across countries. *Journal of Corporate Finance*, 42, 267-286. doi: 10.1016/j.jcorpfin.2016.11.014

<sup>&</sup>lt;sup>98</sup> Chesini, G., & Staniszewska, A. (2017). The determinants of dividend policy: A comparison between firms listed on the Italian Stock Exchange and on the Warsaw Stock Exchange (2001–2014). *Journal of Management and Financial Sciences*, 10(30), 77-90.

Awad (2015) showed that profitability, leverage, level of risk and size are the main determinants of dividend policy of the companies in Kuwait Stock Exchange (KSE).<sup>99</sup>

Pourheidari (2009) showed that the most significant determinants of corporate dividend policy of Iran are investment opportunities, industry type, stability of profitability and cash flow.<sup>100</sup>

Maladjian and El Khoury (2014) empirically showed that the dividend payout policies of the Lebanese banks listed on the Beirut Stock Exchange are positively affected by the firm size, risk and previous year's dividends, but are negatively affected by the investment opportunity, growth and profitability.<sup>101</sup>

Nnadi, Wogboroma and Kabel (2013) found similarities in the determinants of dividend policy in African firms with those in most developed economies. In particular, agency costs are the main determinants of dividend policy of African companies. Profitability, market capitalization, age and growth of companies are the main factors in shaping the dividend policy of listed companies in Africa. <sup>102</sup>

Martín Reyna (2017) stated that there is a negative influence of the concentration of property in families on the payment of dividends of companies in the Mexican market, while institutional shareholders have an inverse effect.<sup>103</sup>

Robinson (2006) found that publicly listed companies in Jamaica follow stable dividend policies and engage in dividend smoothing in line with the Lintner (1956) model. 104

<sup>&</sup>lt;sup>99</sup> Awad, B. (2015). Determinants of dividend policy in Kuwait Stock Exchange. International Journal of Business and Management Review, 3(7), 72-78.

<sup>100</sup> Pourheidari, O. (2009). A survey of management views on dividend policy in Iranian firms. International Journal of Islamic and Middle Eastern Finance and Management, 2(1), 20-31. doi: 10.1108/17538390910946249

<sup>&</sup>lt;sup>101</sup> Maladjian, C., & El Khoury, R. (2014). Determinants of the dividend policy: An empirical study on the Lebanese listed banks. *International Journal of Economics and Finance*, 6(4), 240-256. doi: 10.5539/ijef.v6n4p240

<sup>&</sup>lt;sup>102</sup> Nnadi, M., Wogboroma, N., & Kabel, B. (2013). Determinants of dividend policy: Evidence from listed firms in the African stock exchanges. *Panoeconomicus*, 60(6), 725-741. doi: 10.2298/pan1306725n

<sup>&</sup>lt;sup>103</sup> Martin Reyna, J. (2017). Ownership structure and its effect on dividend policy in the Mexican context. Accounting and Administration, 62(4), 1199-1213. doi: 10.1016/j.cya.2015.12.006

<sup>&</sup>lt;sup>104</sup> Robinson, C. (2006). Corporate finance in developing countries: An analysis of dividend policy among publicly listed firms in Jamaica. *Savings and Development*, 13(2), 169-188.

Džidić and Živko (2019) observed that larger and more profitable companies in Bosnia and Herzegovina tend to pay dividends. However, more indebted and closely held companies are less likely to pay dividends. <sup>105</sup>

Kinkki (2008) found that minority protection has a better influence over managerial control than controlling shareholders having absolute voting power in Finland. 106

Baker, Mukherjee and Paskelian (2006) stated that the key factors that drive dividend policies of Norwegian firms listed on the Oslo Stock Exchange are the level of current and expected future earnings, stability of earnings, current degree of financial leverage, and liquidity constraints.<sup>107</sup>

Moortgat, Annaert and Deloof (2017) stated that changes in investor protection and taxation legislation seem to have had little impact on dividend policy of Belgian companies listed on the Brussels Stock Exchange.<sup>108</sup>

Andres, Betzer, Goergen and Renneboog (2009) stated that dividend decisions of German companies are based on cash flows rather than published earnings. 109

Higgins (1972) stated that dividends are viewed as mostly a residual in the corporate decision process as shareholders prefer capital gains to dividends in a world of transaction costs and differential taxes.<sup>110</sup>

Nam (2018) stated that loss firms with good prospects have incentives to signal their future performance using dividend payouts, and research and development (R&D) is an important factor in determining dividend payout for loss firms in South Korea.<sup>111</sup>

<sup>105</sup> Džidić, A., & Živko, I. (2019). Internal factors of dividend policy in public firms in Bosnia and Herzegovina. Croatian Review of Economic, Business and Social Statistics, 5(2), 1-16. doi: 10.2478/crebss-2019-0007

<sup>&</sup>lt;sup>106</sup> Kinkki, S. (2008). Minority protection and dividend policy in Finland. *European Financial Management*, 14(3), 470-502. doi: 10.1111/j.1468-036x.2007.00408.x <sup>107</sup> Baker, H., Mukherjee, T., & Paskelian, O. (2006). How Norwegian managers view dividend policy. *Global Finance Journal*, 17(1), 155-176. doi: 10.1016/j.gfj.2006.06.005

<sup>&</sup>lt;sup>108</sup> Moortgat, L., Annaert, J., & Deloof, M. (2017). Investor protection, taxation and dividend policy: Long-run evidence, 1838–2012. Journal of Banking & Finance, 85(C), 113-131. doi: 10.1016/j.jbankfin.2017.08.013

<sup>&</sup>lt;sup>109</sup> Andres, C., Betzer, A., Goergen, M., & Renneboog, L. (2009). Dividend policy of German firms: A panel data analysis of partial adjustment models. *Journal of Empirical Finance*, 16(2), 175-187.

<sup>110</sup> Higgins, R. (1972). The corporate dividend-saving decision. The Journal of Financial and Quantitative Analysis, 7(2), 1527-1541. doi: 10.2307/2329932

<sup>111</sup> Nam, H. (2018). The dividend payout policy and R&D for loss firms: Evidence from South Korea. Asia-Pacific Journal of Accounting & Economics, 26(5), 172-183. doi: 10.1080/16081625.2019.1546564

Nguyen and Harada (2011) showed that firms with concentrated ownership are less likely to increase dividends when earnings increase or when debt decreases in Japanese firms. 112

Hoang and Hoxha (2019) found that geographic/cultural/institutional variations influence dividend policy to other financing decisions of companies. 113

# 3.2.2 Studies Supporting Dividend Relevance Theory

Numerous studies have been conducted across the world on the relevance of dividend policy to the value the firm. Many researchers argue that dividends increase share prices and hence shareholders' wealth (Gordon, 1959, 1962;<sup>114</sup> Walter, 1963; Miller & Rock, 1985;<sup>115</sup> John & Williams, 1985;<sup>116</sup> Baker, Veit & Powell, 2001<sup>117</sup>). Gordon (1959) asserts that dividend decision influences the value of shares as investors are rational and risk averse, so they prefer current dividends to future dividends.<sup>118</sup> Walter (1963) asserts that dividend is relevant and it influences equity share price of firms.<sup>119</sup>

Sharif, Ali and Jan (2015) stated that dividend payout ratio has a significant positive relationship with share prices of non-financial companies listed on KSE. They recommended that companies should pay dividend regularly as it causes an upward movement in the stock market prices, whereas profit retention by firms results in a decrease in the stock market prices.<sup>120</sup>

Balagobei and Selvaratnam (2015) found that there is a significant relationship between the dividend policy and shareholders' wealth as well as dividend per share has a

<sup>112</sup> Nguyen, P., & Harada, K. (2011). Ownership concentration and dividend policy in Japan. *Managerial Finance*, 37(4), 362-379. doi: 10.1108/03074351111115313
113 Hoang, E., & Hoxha, I. (2019). An international study of the response of corporate payout policy. *International Journal of Managerial Finance*, 15(3), 335-349. doi: 10.1108/jimf-04-2018-0116

<sup>114</sup> Gordon, M. (1962). The savings, investment, and valuation of a corporation. The Review of Economics and Statistics, 44(1), 37-51. doi: 10.2307/1926621

<sup>115</sup> Miller, M., & Rock, K. (1985). Dividend policy under asymmetric information. *The Journal of Finance*, 40(4), 1031-1051. doi: 10.1111/j.1540-6261.1985.tb02362.x

<sup>&</sup>lt;sup>116</sup> John, K., & Williams, J. (1985). Dividends, dilution, and taxes: A signaling equilibrium. *The Journal of Finance*, XL(4), 1053-1070. doi: 10.1111/j.1540-6261.1985.tb02363.x

<sup>&</sup>lt;sup>117</sup> Baker, H., Veit, E., & Powell, G. (2001). Factors influencing dividend policy decisions of Nasdaq firms. *The Financial Review*, 36(3), 19-38. doi: 10.1111/j.1540-6288.2001.tb00018.x

<sup>118</sup> Gordon, M. (1959). Dividends, earnings, and stock prices. The Review of Economics and Statistics, 41(2), 99-105. doi: 10.2307/1927792

<sup>119</sup> Walter, J. (1963). Dividend policy: Its influence on the value of the enterprise. The Journal of Finance, 18(2), 280-291. doi: 10.1111/j.1540-6261.1963.tb00724.x

<sup>120</sup> Sharif, I., Ali, A., & Jan, F. (2015). Effect of dividend policy on stock prices. Journal of Management Info, 6(1), 55-85. doi: 10.15295/bmij.v3i1.23

significant impact on shareholders' wealth of listed manufacturing companies in Sri Lanka. 121

Ahmad, Ihsan and Khalid (2017) stated that stock dividend has an insignificant positive effect on the stock returns. 122

Gupta, Dogra, Vashisht and Ghai (2012) found that dividend announcements have signaling features and share prices react to increased dividend announcements of companies listed on BSE 30 Sensex in India. 123

Jain & Bajaj (2017) showed that stock price of majority of the firms listed in NSF (NIFTY 50) is affected by the EPS. 124

Robbetze, Villiers and Harmse (2017) found that basic EPS has the best correlation with the changing behavior of share prices of listed firms in Johannesburg Share Exchange (JSE). 125

Ariff and Finn (1989) found substantial abnormal returns during the period of dividend announcement in the Singapore equity market. 126

Joshi and Mayur (2017) stated that there is a significant difference in the impact of dividend announcements in pre and post announcement period on the share price of the companies listed in Bombay Stock Exchange (BSE). 127

<sup>121</sup> Balagobei, S., & Selvaratnam, P. (2015). Dividend policy and shareholders' wealth of listed manufacturing companies in Sri Lanka. Journal of Economics and

Sustainable Development, 6(19), 33-38.

122 Ahmad, K., Ihsan, A., & Khalid, R. (2017). Impact of stock dividend/bonus issue on returns of stock listed in Karachi Stock Exchange. International Journal of

Advanced Research, 5(1), 1666-1678. doi: 10.21474/ijar01/2935

123 Gupta, S., Dogra, B., Vashisht, A., & Ghai, S. (2012). Stock price reaction to dividend announcements. International Journal of Financial Management, 2(2), 23-

<sup>31. &</sup>lt;sup>124</sup> Jain, N., & Bajaj, K. (2017). Impact of earnings per share with special reference to selected companies listed on NSE. *International Journal of Engineering and* 

Management Research, 7(3), 1-9.

125 Robbetze, N., Villiers, R., & Harmse, L. (2017). The effect of earnings per share categories on share price behavior: Some South African evidence. Journal of Applied Business Research (JABR), 33(1), 141-151. doi: 10.19030/jabr.v33i1.9886

Ariff, M., & Finn, F. (1989). Announcement effects and market efficiency in a thin market: An empirical application to the Singapore equity market. Asia Pacific Journal of Management, 6(2), 243-265. doi: 10.1007/bf01733767

127 Joshi, A., & Mayur, M. (2017). A study on the impact of dividend announcement on stock price. Journal of Advances in Social Science and Humanities, 3(5),

<sup>35047-35055.</sup> 

Memon, Channa and Khoso (2017) observed that there is the significant negative impact of dividend yield and significant positive impact of dividend payout on stock market prices of the nonfinancial sectors of Pakistan. 128

Prabhakaran and Karthika (2018) confirmed the dividend signaling theory across the companies in Muscat securities market as share prices are significantly influenced by dividend announcements. 129

Ngoc and Cuong (2016) clearly showed the positive effect of dividend announcements on the stock return of listed companies in Vietnam. Share prices increase when the exdividend date draws near. 130

Tharmila and Nimalathasan (2013) observed that earnings per share and net asset value per share have significant impact on market vulnerability of the listed manufacturing firms listed on Colombo Stock Exchange (CSE). 131

Ponsian, Prosper, Yuda and Samwel (2015) studied the relationship between dividend policy and stock price in Dar Es Salaam Stock Exchange (DSE). The findings of the study revealed that that P/E ratio is positively related with stock price while other variables namely dividend yield, dividend payout ratio, earnings per share and price earnings ratio are negatively related. 132

Priya and Mohanasundari (2016) reviewed the empirical findings of the existing theories on dividend policy and found a positive relationship between dividend payout and firm value. 133

<sup>128</sup> Memon, N., Channa, N., & Khoso, I. (2017). Impact of dividend policy on market prices of shares: Evidence from Pakistan. Journal of Business Strategies, 11(2),

<sup>57-72.

129</sup> Prabhakaran, K., & Karthika, P. (2018). The impact of dividend announcement on stock prices in Muscat securities market, Muscat. Open Access Journal of Science, 2(6), 409-417. doi: 10.15406/oajs.2018.02.00106

<sup>130</sup> Ngoc, D., & Cuong, N. (2016). Dividend announcement and ex-dividend effects on stock return. International Journal of Economics and Finance, 8(7), 207-215.

<sup>131</sup> Tharmila, K., & Nimalathasan, B. (2013). The value relevance of accounting information and its impact on market vulnerability: A study of listed manufacturing companies in Sri Lanka. Research Journal of Finance and Accounting, 4(18), 102-109.

132 Ponsian, N., Prosper, K., Yuda, T., & Samwel, G. (2015). Relationship between dividend policy and share price. Archives of Business Research, 3(3), 11-20. doi:

<sup>10.14738/</sup>abr.33.1118

133 Priya, P., & Mohanasundari, M. (2016). Dividend policy and its impact on firm value: A review of theories and empirical evidence. *Journal of Management* 

Sciences and Technology, 3(3), 59-69.

Dharmarathne (2013) observed that the stock price reacts positively to subsequent announcements of dividend in the Sri Lankan capital market. 134

Suwanna (2012) empirically confirmed the signaling theory of dividend in the Stock Exchange of Thailand (SET) as announcements of dividend have significant effect on share prices. 135

Chaudhary, Hashmi and Younis (2016) found support of dividend signaling hypothesis in Karachi Stock Exchange, which indicates that dividend announcement is utilized as a tool to provide positive signals in the market. 136

Riya K.J, P.R and Ananth (2017) empirically found that earnings per share, gross profit ratio, net profit ratio, return on equity, dividend, dividend payout ratio and dividend yield influence the market price of shares of companies listed on National Stock Exchange (NSE) in India. 137

Ahmed (2018) observed that dividend per share and earnings per share impact positively and significantly on stock prices of Textile composite sector of Pakistan. 138

Subramaniam and Murugesu (2013) studied the impact of earning per share on share price of listed manufacturing companies in Sri Lanka. Analyzed results revealed that earnings per share have a strong positive relationship with stock price. 139

Khan, Shah and Baber (2018) showed that dividend per share, dividend payout ratio and retention ratio have positive impact on earnings per share of listed insurance companies in Pakistan. 140

<sup>134</sup> Dharmarathne, D. (2013). Stock price reaction to dividend announcements and information efficiency in Sri Lankan Share Market. International Journal of Research in Social Sciences, 3(2), 100-111.

Suwanna, T. (2012). Impacts of dividend announcement on stock return. Procedia - Social and Behavioral Sciences, 40(2012), 721-725. doi: 10.1016/j.sbspro.2012.03.255

<sup>136</sup> Chaudhary, G., Hashmi, S., & Younis, A. (2016). Does dividend announcement generate market signal? Evidence from Pakistan. International Journal of Economics and Financial Issues, 6(1), 65-72

<sup>137</sup> Riya K.J, A., P.R, S., & Ananth, A. (2017). A research paper on impact of dividend policy determinants of listed companies on Indian capital market. Journal of Finance and Accounting, 5(2), 40-43.

<sup>138</sup> Ahmed, I. (2018). Impact of dividend per share and earnings per Share on stock prices: A case study from Pakistan (textile sector). International Journal of Social Sciences, Humanities and Education, 2(2), 1-10.

139 Subramaniam, V., & Murugesu, T. (2013). Impact of earning per share (EPS) on share price (listed manufacturing companies in Sri Lanka). International Journal

of Innovative Research & Studies, 2(12), 250-258.

Anjali and Raju (2017) reported that most of the companies from banking, IT, realty and health care sectors have informational efficiency in Indian stock market.<sup>141</sup>

Patel and Prajapati (2014) found through investigating the empirical evidence that there is a significant differences in average number of transactions before and after stock dividend announcements of companies in Indian stock market.<sup>142</sup>

Velankar, Chandani and Ahuja (2017) examined the impact of EPS and DPS on stock price of twelve selected public sector banks of India for the period of 2006-2007 to 2014-2015. The study has disclosed that 83.43% variation in stock price is being explained by the independent variables EPS and DPS.<sup>143</sup>

Bao and Chow (1999) showed that earnings and book value reported based on IASs have greater information content than those based on domestic GAAPs across the listed Chinese companies.<sup>144</sup>

Salman (2019) aimed to identify and analyze the influence of shareholder preference and dividend signaling on the dividend policy of the firms in Pakistan. Through statistical techniques the findings proved that shareholder preferences and dividend signaling have a positive and significant relationship with the dividend policy of listed firms.<sup>145</sup>

Yilmaz and Gulay (2006) confirmed the price-volume reaction on dividend payment date in addition to the significant effect of cash dividend on the stock price of companies listed on Istanbul Stock Exchange.<sup>146</sup>

<sup>&</sup>lt;sup>140</sup> Khan, M., Shah, S., & Baber, S. (2018). Impact of dividend policy on shareholders' wealth: An empirical analysis of listed insurance companies in Pakistan. *Journal of Business and Tourism*, 4(1), 69-80.

<sup>&</sup>lt;sup>141</sup> Anjali, R., & Raju, G. (2017). Dividend announcement and market efficiency - An empirical study on service sector companies listed in BSE. SDMIMD Journal of Management, 8(1), 1-10. doi: 10.18311/sdmimd/2017/15714

<sup>&</sup>lt;sup>142</sup> Patel, N., & Prajapati, K. (2014). Impact of dividend announcement on the stock prices of Indian companies: Empirical evidence. ELK Asia Pacific Journal of Finance and Risk Management, 5(2), 1-11.

<sup>&</sup>lt;sup>143</sup> Velankar, N., Chandani, A., & Ahuja, A. (2017). Impact of EPS and DPS on stock price: A study of selected public sector banks of India. *Prestige International Journal of Management & IT-Sanchayan*, 6(1), 111-121.

<sup>&</sup>lt;sup>144</sup> Bao, B., & Chow, L. (1999). The usefulness of earnings and book value for equity valuation in emerging capital markets: Evidence from listed companies in the People's Republic of China. *Journal of International Financial Management and Accounting*, 10(2), 85-104. doi: 10.1111/1467-646x.00045

reopie's Republic of China. Journate of International Financial Management and Accounting, 10(2), 85-104. doi: 10.1111/1407-040x.00045

[45 Salman, A. (2019). Determinance of dividend policy. Investment Management and Financial Innovations, 16(1), 167-177. doi: 10.21511/imfi.16(1).2019.13

<sup>&</sup>lt;sup>146</sup> Yilmaz, M., & Gulay, G. (2006). Dividend policies and price-volume reactions to cash dividends on the stock market: Evidence from the Istanbul Stock Exchange. Emerging Markets Finance and Trade, 42(4), 19-49. doi: 10.2753/ree1540-496x420402

Travlos, Trigeorgis and Vafeas (2001) found that the announcements of increased cash and stock dividend in the stock market of Cyprus produced significantly positive abnormal returns, in line with the developed stock markets.<sup>147</sup>

Richardson, Sefcik and Thompson (1986) showed that announcement of cash dividend by the firms increase trading volume and firm value around the announcement date.<sup>148</sup>

Bajaja and Jain (2019) attempted to find out relationship between dividend pay-out and market price of shares taking into consideration the automobile sector companies listed in NIFTY 50 for 10 years i.e. 2009 to 2018. The study concluded that there exists a robust relation between dividend payout ratio and market price of shares.<sup>149</sup>

Michaely, Thaler and Womack (1995) found that the magnitudes of short-term stock price reactions to omissions are greater than for initiations of cash dividend payments.<sup>150</sup>

Robinson (2006) found that companies in Barbados are unwilling to omit or cut dividends and follow stable dividend policies in line with "Bird-in-the-Hand" view of dividends.<sup>151</sup>

Clubb and Walker (2014) stated that the value relevance of payout depends on earnings measurement quality and optimal investment policy.<sup>152</sup>

The study of Maditinos, Sevic, Theriou and Tsinani (2007) found strong evidence that individual investors in Greece want dividends.<sup>153</sup>

Karpoff and Walkling (1990) examined the importance of dividend-capture trading in NASDAQ stocks by testing for cross-sectional relations between ex-day abnormal returns

152 Clubb, C., & Walker, M. (2014). Payout policy relevance and accounting-based valuation. Abacus, 50(4), 490-516. doi: 10.1111/abac.12038

<sup>&</sup>lt;sup>147</sup> Travlos, N., Trigeorgis, L., & Vafeas, N. (2001). Shareholder wealth effects of dividend policy changes in an emerging stock market: The case of Cyprus. *Multinational Finance Journal*, 5(2), 87-112. doi: 10.17578/5-2-1

<sup>&</sup>lt;sup>148</sup> Richardson, G., Sefcik, S., & Thompson, R. (1986). A test of dividend irrelevance using volume reactions to a change in dividend policy. *Journal of Financial Economics*, 17(2), 313-333. doi: 10.1016/0304-405x(86)90068-1

<sup>&</sup>lt;sup>149</sup> Bajaja, K., & Jain, N. (2019). Impact of dividend pay-out on market price of share with special reference to automobile sector companies listed on NSE. In *International Conference on Advancements in Computing & Management (ICACM) 2019* (p. 6). Jaipur-303901 (Rajasthan), India:.

<sup>150</sup> Michaely, R., Thaler, R., & Womack, K. (1995). Price reactions to dividend initiations and omissions: Overreaction or drift?. The Journal of Finance, 50(2), 573-608. doi: 10.1111/j.1540-6261.1995.tb04796.x

<sup>151</sup> Robinson, C. (2006). Dividend policy among publicly listed firms in Barbados. Journal of Eastern Caribbean Studies, 31(1), 1-36.

<sup>153</sup> Maditinos, D., Sevic, Z., Theriou, N., & Tsinani, A. (2007). Individual investors' perceptions towards dividends: The case of Greece. *International Journal of Monetary Economics and Finance*, 1(1), 18-31. doi: 10.1504/ijmef.2007.016023

and bid-ask spreads. They found that ex-day returns and spreads are positively related. The relation increases across dividend-yield quintiles and is strongest in high-yield shares. 154

Nissim and Ziv (2001) stated that changes in dividend are positively related to changes in earnings in each of the two years after the changes in dividend. 155

Javed and Shah (2015) suggested paying huge amount of dividends, as retention of earnings does not contribute in enhancing the stock returns of firms listed in Karachi Stock Exchange. 156

Warrad (2017) showed that book value per share, dividend per share and dividend yield have significant effect on stock price of Jordanian banks. 157

Nguyen, Bui and Do (2019) found that the dividend payout and dividend yield have statistically significantly negative impact on share price volatility of listed non-finance companies in Ho Chi Minh Stock Exchange. 158

Zainudin, Mahdzan and Yet (2018) stated that dividend policy is a strong predictor of stock price volatility in Malaysia, mainly during the post-crisis period. 159

Hussainey, Mgbame and Chijoke-Mgbame (2011) found that there is a positive relationship between dividend yield and changes in stock price. However, there is a negative relationship between dividend payout ratio and changes in stock price in the London Stock Exchange. 160

<sup>154</sup> Karpoff, J., & Walkling, R. (1990). Dividend capture in NASDAQ stocks. Journal of Financial Economics, 28(1-2), 39-65. doi: 10.1016/0304-405x(90)90047-4 155 Nissim, D., & Ziv, A. (2001). Dividend changes and future profitability. The Journal of Finance, 56(6), 2111-2133. doi: 10.1111/0022-1082.00400

<sup>156</sup> Javed, F., & Shah, F. (2015). Impact of retained earnings on stock returns of food and personal care good industry listed in Karachi Stock Exchange. International

Journal of Scientific and Research Publications, 5(11), 397-407.

157 Warrad, L. (2017). The effect of market valuation measures on stock price: An empirical investigation on Jordanian banks. International Journal of Business and Social Science, 8(3), 67-74.

<sup>158</sup> Nguyen, D., Bui, M., & Do, D. (2019). The relationship of dividend policy and share price volatility: A case in Vietnam. Annals of Economics and Finance, 20(1),

<sup>159</sup> Zainudin, R., Mahdzan, N., & Yet, C. (2018). Dividend policy and stock price volatility of industrial products firms in Malaysia. International Journal of Emerging Markets, 13(1), 203-217. doi: 10.1108/ijoem-09-2016-0250

<sup>160</sup> Hussainey, K., Mgbame, C., & Chijoke-Mgbame, A. (2011). Dividend policy and share price volatility: UK evidence. The Journal of Risk Finance, 12(1), 57-68. doi: 10.1108/15265941111100076

Zakaria, Muhammad and Zulkifli (2012) found that changes in stock price are significantly influenced by dividend payout ratio. 161

Shin and Hasan (2019) showed that dividend yield, firm size and dividend payout ratio are inversely significant to stock price volatility of companies listed in Bursa Malaysia. Levels of debt and earnings volatility have significant positive association with stock price volatility. 162

Banerjee (2018) stated that dividend policy is positively linked with earning per share and share price of companies listed on the Qatar Stock Exchange (QSE). Moreover, dividend policy has a significantly positive association with return on equity. <sup>163</sup>

Mohamed and Jamil (2016) found a significant positive relationship between earnings per share, return on equity and stock price of industrial sector companies listed on Muscat Securities Market (MSM) in Oman. 164

Oliver C., Iniviei S. and Daniel S. (2016) empirically showed that dividend per share is significant and inversely related to stock price while earnings per share is both positive and significant to stock price of companies. 165

Asquith and Mullins, Jr. (1983) stated that both initial as well as subsequent dividends impart valuable information to the investors. 166

Samiloglu, Bagci, Oztop and Kahraman (2017) stated that dividend profitability has a negative and significant relationship with share price, while cash dividend amount has a

<sup>161</sup> Zakaria, Z., Muhammad, J., & Zulkifli, A. (2012). The impact of dividend policy on the share price volatility: Malaysian construction and material companies. International Journal of Economics and Management Sciences, 2(5), 1-8.

<sup>62</sup> Shin, P., & Hasan, R. (2019). Effect of dividend policy on share price volatility in the Malaysian stock market. International Tourism and Hospitality Journal, 2(2),

<sup>1-8.</sup>Banerjee, A. (2018). Dividend policy as a corporate communication and its impact on firm value: Evidences from listed companies in Qatar Stock Exchange. Financial Markets, Institutions and Risks, 2(4), 29-38. doi: 10.21272/fmir.2(4).29-38.2018

<sup>164</sup> Mohamed, Z., & Jamil, S. (2016). Does dividend policy impact stock market prices? - Evidence from Oman. International Journal of Applied Business and Economic Research, 13(9), 6873-6883.

<sup>165</sup> Oliver C., E., Iniviei S., E., & Daniel S., E. (2016). Effect of dividend policy on the value of firms (empirical study of quoted firms in Nigeria Stock Exchange). Research Journal of Finance and Accounting, 7(3), 17-24.

<sup>166</sup> Asquith, P., & Mullins, Jr., D. (1983). The impact of initiating dividend payments on shareholders' wealth. The Journal of Business, 56(1), 77-96. doi: 10.1086/296187

positive and significant relationship with share price of companies listed in Istanbul Stock Exchange (BIST).<sup>167</sup>

Lashgari and Ahmadi (2014) found that dividend payout ratio has a significantly negative effect on stock price volatility while asset growth rate has a significantly positive effect on share price volatility in Tehran Stock Exchange. 168

Hoa Phan and Tran (2019) showed that dividend yield mitigates share price volatility in Vietnam. 169

Banerjee, Gatchev and Spindt (2007) showed that sensitivity of firm value to aggregate liquidity declines after dividend initiations. That is, investors regard stock market liquidity and dividends as alternative.<sup>170</sup>

# 3.2.3 Studies Supporting Dividend Irrelevance Theory

A major controversy in the literature involves the relationship between dividend policy and the value of the firm. Miller and Modigliani (1961) first formally presented the irrelevance theory of dividend. In this regard, Miller and Modigliani (1961) suggest that dividend policy has no effect on the value of the firm in a world without taxes, transactions costs, or other market imperfections.<sup>171</sup> In support of irrelevance theory, some argue that dividends are irrelevant and have nothing to do with the price of the share (Miller & Scholes, 1978,<sup>172</sup> 1982)<sup>173</sup> and still others argue that dividends decrease stockholders' wealth (Litzenberger & Ramaswamy, 1919).<sup>174</sup> Bhattacharyya (2007)

<sup>&</sup>lt;sup>167</sup> Samiloglu, F., Bagci, H., Oztop, A., & Kahraman, Y. (2017). Impact of dividend policy on share price: A case study in Istanbul Stock Exchange (BIST). *IOSR Journal of Economics and Finance*, 8(4), 49-53.

<sup>&</sup>lt;sup>168</sup> Lashgari, Z., & Ahmadi, M. (2014). The impact of dividend policy on stock price volatility in the Tehran Stock Exchange. Kuwait Chapter of Arabian Journal of Business and Management Review, 3(10), 273-283. doi: 10.12816/0018408

<sup>&</sup>lt;sup>169</sup> Hoa Phan, T., & Tran, N. (2019). Dividend policy and stock price volatility in an emerging market: Does ownership structure matter?. Cogent Economics & Finance, 7(1), 1-29. doi: 10.1080/23322039.2019.1637051

<sup>&</sup>lt;sup>170</sup> Banerjee, S., Gatchev, V., & Spindt, P. (2007). Stock market liquidity and firm dividend policy. *Journal of Financial and Quantitative Analysis*, 42(2), 369-397. doi: 10.1017/s0022109000003318

<sup>171</sup> Miller, M., & Modigliani, F. (1961). Dividend policy, growth, and the valuation of shares. The Journal of Business, 34(4), 411-433. doi: 10.1086/294442

<sup>172</sup> Miller, M., & Scholes, M. (1978). Dividends and taxes. *Journal of Financial Economics*, 6(4), 333-364. doi: 10.1016/0304-405x(78)90009-0

<sup>173</sup> Miller, M., & Scholes, M. (1982). Dividends and taxes: Some empirical evidence. Journal of Political Economy, 90(6), 1118-1141. doi: 10.1086/261114

<sup>&</sup>lt;sup>174</sup> Litzenberger, R., & Ramaswamy, K. (1979). The effect of personal taxes and dividends on capital asset prices. *Journal of Financial Economics*, 7(2), 163-195. doi: 10.1016/0304-405x(79)90012-6

reviewed the major theories of dividend policy and found that empirical evidence is indecisive and the famous dividend puzzle is still unsolved. 175

Tharshiga and Velnamby (2017) explored that corporate dividend policy does not influence market price of shares of Sri Lankan firms in consistent with the Dividend Irrelevance Theory. 176

Dedunu (2018) showed that dividend announcements have no positive or negative reactions to market price of shares in the Colombo Stock Exchange. 177

Geetha and Swaaminathan (2015) showed that the dividend per share doesn't have positive or negative effect to the market price of shares of companies from automobile and IT industries listed in BSE and NSE in India. 178

Bacon and Labbs (2013) tested the semi-strong form efficient market hypothesis by analyzing the effects of increased dividend announcements on stock price and the findings of the study fail to support the semi-strong form efficient market hypothesis. 179

Owusu, Gyau and Amaning (2016) found out that earnings announcement had no effect on stock price and as such that the Ghana Stock Exchange is not efficient in the semi strong form. 180

Manzoor (2015) observed that disclosure of positive and negative earning information cannot reflect the changes in the market price of shares of the companies listed on Karachi Stock Exchange. 181

<sup>175</sup> Bhattacharyya, N. (2007). Dividend policy: A review. Managerial Finance, 33(1), 4-13. doi: 10.1108/03074350710715773

<sup>176</sup> Tharshiga, P., & Velnamby, T. (2017). An analysis of dividend policy and market value of listed manufacturing companies in Sri Lanka. International Journal of Scientific and Engineering Research, 8(6), 214-222.

<sup>177</sup> Dedunu, H. (2018). Impact of dividend announcement on share price: Evidence from Colombo Stock Exchange. International Journal of Management Sciences and Business Research, 7(12), 1-5.

<sup>178</sup> Geetha, E., & Swaaminathan, T. (2015). A study on the factors influencing stock price: A Comparative study of automobile and information technology industries stocks in India. International Journal Current Research and Academic Review, 3(3), 97-109.

<sup>179</sup> Bacon, F., & Labbs, D. (2013). The effect of increased dividend announcements on stock price: A test of market efficiency. International Research Journal of Applied Finance, 4(6), 775-784.

Owusu, F., Gyau, E., & Amaning, N. (2016). The effect of earnings announcement on share price of manufacturing companies on the Ghana Stock Exchange. European Journal of Accounting, Auditing and Finance Research, 4(6), 96-111.

181 Manzoor, H. (2015). Impact of dividends announcements on stock returns: Evidence from Karachi stock market. American Research Journal of Business

Management, 1(2), 25-36. doi: 10.21694/2379-1047.15009

Dhungel (2013) found that share price of most of the banks in Nepal is not significantly impacted by dividends. 182

Seyedimany (2019) showed that shareholders are not in a position to gain value from the announcements of special dividend in NASDAC, which is in consistent with the dividend irrelevance hypothesis of Miller and Modigliani (1961)<sup>183</sup>

Alaeto (2018) found that dividend announcements fail to impart any information to react stock prices of firms listed on London Stock Exchange (LSE), which is in support of the M-M Dividend Irrelevance Theory.<sup>184</sup>

Srivastava (1968) found that the price effect on dividend supply is not a serious source of bias in the derivation of dividend and retained earning effect on price in India. 185

Balakrishnan (2016) found that share price of various companies listed in National Stock Exchange (NSE) are not affected by earnings per share, dividend per share, and price earnings ratio and only few industries are affected.<sup>186</sup>

Allen and Rachim (1996) found no evidence that dividend yield is correlated with stock price volatility of Australian listed companies. 187

Vavilina, Levanova and Tkachenko (2019) found no statistically significant dependence of stock prices of most Russian companies on the size of dividends paid out.<sup>188</sup>

<sup>182</sup> Dhungel, A. (2013). Impact of dividend on share pricing in commercial banks of Nepal. Banking Journal, 3(2), 21-36. doi: 10.3126/bj.v3i2.8542

<sup>&</sup>lt;sup>183</sup> Seyedimany, A. (2019). Stock price reactions on NASDAQ Stock Exchange for special dividend announcements. *Emerging Science Journal*, 3(6), 382-388. doi: 10.28991/esj-2019-01200

<sup>184</sup> Alaeto, E. (2018). Impact of dividend announcements on stock prices of UK firms listed in London Stock Exchange. GIS Business, 13(4), 1-10. doi: 10.26643/gis.v13i4.3271

<sup>185</sup> Srivastava, S. (1968). Share prices, dividends and earnings. Economic & Political Weekly, 3(48), M89+M91+M93-M95.

<sup>186</sup> Balakrishnan, K. (2016). A study on impact of earnings per share, dividend per share, price earnings ratio on behaviour of share market price movements (Pharma sector) with special reference to NSE. *International Journal of Advance Research and Innovative Ideas in Education*, 2(1), 381-390.

187 Allen, D. & Rachim, V. (1996). Dividend policy and stock price volatility: Australian evidence. *Applied Financial Economics*, 6(2), 175-188, doi:

<sup>&</sup>lt;sup>187</sup> Allen, D., & Rachim, V. (1996). Dividend policy and stock price volatility: Australian evidence. *Applied Financial Economics*, 6(2), 175-188. doi: 10.1080/096031096334402

<sup>188</sup> Vavilina, A., Levanova, L., & Tkachenko, I. (2019). Interrelation between dividend policy and corporate reputation in Russian companies. *Upravlenets - The Manager*, 10(4), 14-23. doi: 10.29141/2218-5003-2019-10-4-2

### 3.3 STUDIES ON BANGLADESH CONTEXT

Many studies on corporate dividend policy have been conducted so far around the world, but the studies in emerging markets, particularly in Bangladesh, have been much more limited in compared to developed markets. Apart from the studies conducted in foreign context, there are some empirical evidences in the context of Bangladesh.

<sup>189</sup>Zaman (2015) stated that the size is not a significant determinant while profitability is one of the important determinants of dividend policy of private commercial banks in the capital market of Bangladesh (Zaman, 2012). 190

Hossain (2016) showed that dividend payout ratio is positively and significantly affected by liquidity, firm growth, previous year's dividends but are negatively affected by leverage and profitability. Firm size, firm risk and ownership structure do not have a direct influence on the dividend payments. Thus, leverage, liquidity, firm growth, previous year's dividends, and profitability are the key determinants of dividend payout of the listed private commercial banks in Bangladesh. 191

Ahmed and Muktadir-Al-Mukit (2014) found that the most significant determinants of dividend payout ratio of listed companies in Bangladesh are market to book value ratio, profitability and corporate tax. 192

Imam and Malik (2007) provided empirical evidence that companies having vast institutional ownership offer high dividend payout and companies having concentrated ownership offer less dividend payout in non-financing companies listed on Dhaka Stock Exchange. 193

<sup>189</sup> Zaman, S. (2015). A study on the dividend policy of private commercial banks in Bangladesh. Daffodil International University Journal of Business and Economics, 9(1), 111-117.

<sup>&</sup>lt;sup>9</sup> Zaman, S. (2012). Profitability is an important determinant of dividend policy of listed private commercial bank of Bangladesh - True or false?. World Review of Business Research, 2(3), 118-123.

<sup>191</sup> Hosain, M. (2016). Determinants of the dividend payout policy: A study on listed private commercial banks of Dhaka Stock Exchange limited in Bangladesh. IOSR Journal of Economics and Finance, 7(5), 01-10.

<sup>192</sup> Ahmed, M., & Muktadir-Al-Mukit, D. (2014). Determinants of dividend payout ratio: Evidence from Dhaka Stock Exchange. ASA University Review, 8(2), 281-

<sup>289.

193</sup> Imam, M., & Malik, M. (2007). Firm performance and corporate governance through ownership structure: Evidence from Bangladesh stock market. *International* Review of Business Research Papers, 3(4), 88-110.

Huda and Farah (2011) showed that profitability, firm's size, retained earnings and liquidity are significantly related with stock payout and apparently related with cash payout of banks in Bangladesh.<sup>194</sup>

Alam and Hossain (2012) found that dividend rate is negatively influenced by leverage, market capitalization, liquidity and profitability, while positively affected by growth in case of a Bangladeshi company.<sup>195</sup>

Abu (2012) showed that dividend payout policy is determined by liquidity and current earnings of listed companies in Bangladesh. 196

Farah and Rakib (2015) found that firms' size does not have any relationship with dividend rate but it increases the probability of paying cash dividend of companies listed in Dhaka Stock Exchange (DSE); Profitability has a very strong relationship with dividend rate but it has no impact on cash dividend; Dividend is positively related with previous year dividend but it induces firms to pay stock dividend; Age of the firm does not have any significant relationship with dividend rate but it encourages the firm to pay cash dividend as time passes; Leverage of the firms does not have any significant relationship except for bank, where it is positively related but it persuades the whole industry to pay cash dividend.<sup>197</sup>

Islam (2018) found that lagged DPR, size and retained earnings to equity are the significant determinants of dividend policy in the banking sector of Bangladesh. <sup>198</sup>

Islam and Adnan (2018) observed that liquidity and present earnings are the most important determinants for the listed companies of Bangladesh in shaping their dividend policy.<sup>199</sup>

<sup>194</sup> Huda, F., & Farah, T. (2011). Determinants of dividend decision: A focus on banking sector in Bangladesh. *International Research Journal of Finance and Economics*, 77, 33-46.

Economics, 77, 33-46.

195 Alam, Z., & Hossain, M. (2012). Dividend policy: A comparative study of UK and Bangladesh based companies. IOSR Journal of Business and Management, 1(1), 57-67.

Abu, S. (2012). Determinants of dividend payout policy: Evidence from Bangladesh. *International Journal of Economic Practices and Theories*, 2(3), 119-126.
 Farah, T., & Rakib, M. (2015). Determinants of dividends of Islamic financial institutions operating in Bangladesh. *Dhaka University Journal of Business Studies*, XXXVI(1), 117-141.

<sup>&</sup>lt;sup>198</sup> Islam, M. (2018). Determinants of dividend policy: Study on banking sector of Bangladesh. *Parikalpana - KIIT Journal of Management*, 14(2), 1. doi: 10.23862/kiit-parikalpana/2018/v14/i2/177858

Rahman (2015) stated that dividend relevance theory and bird-in-the-hand theory got the highest support among the surveyed managers of companies listed on Dhaka Stock Exchange.<sup>200</sup>

Chowdhury and Jannatunnesa (2017) explored that dividend payout of pharmaceuticals and chemicals sector of Bangladesh has significantly negative relationship with size of firms and significantly positive relationship with last year's dividend.<sup>201</sup>

Hossain, Sheikh and Akterujjaman (2013) found that cash dividend payments of companies listed on Dhaka Stock Exchange (DSE) are positively affected by size and profitability, which is statistically significant. They also found that managerial ownership and earnings volatility have a significant negative on the payment of dividend.<sup>202</sup>

The empirical results of the study of Mollah (2009) recommended that dividend pronouncements are mostly directed by lagged dividends and current profitability of companies listed on Dhaka Stock Exchange. Cash flow is recognized as a superior measure of the company's capability to pay dividends.<sup>203</sup>

The findings of the study of Sadia (2018) show that previous year's dividend, firm's risk and size are statistically significant and positively related with dividend payout ratio of companies listed in Dhaka Stock Exchange.<sup>204</sup>

Ahmed (1991) found that companies paying regular dividend have higher P/E ratio than those paying irregularly. The author has also found that both dividend and retained

<sup>&</sup>lt;sup>199</sup> Islam, M., & Adnan, A. (2018). Factors influencing dividend policy in Bangladesh: Survey evidence from listed manufacturing companies in Dhaka Stock Exchange. European Journal of Business Science and Technology, 4(2), 156-173. doi: 10.11118/ejobsat.v4i2.132

<sup>&</sup>lt;sup>200</sup> Rahman, M. (2015). Managers' Perception towards dividends and dividend policy—Evidence from Bangladesh. *Journal of Financial Risk Management*, 04(03), 143-157. doi: 10.4236/jfrm.2015.43012

<sup>&</sup>lt;sup>201</sup> Chowdhury, T., & Jannatunnesa. (2017). Stock market investors' guide to corporate dividend policy: Evidence from pharmaceuticals and chemicals industries in Bangladesh. *Asian Journal of Finance & Accounting*, 9(1), 166-191. doi: 10.5296/ajfa.v9i1.10871

<sup>&</sup>lt;sup>202</sup> Hossain, M., Sheikh, R., & Akterujjaman, S. (2013). Impact of firm specific factors on cash dividend payment decisions: Evidence from Bangladesh. In 9th Asian Business Research Conference (pp. 1-18). Dhaka: BIAM Foundation.

<sup>&</sup>lt;sup>203</sup> Mollah, S. (2009). Testing partial adjustment dividend behavioral models in emerging markets: Evidence from pre and post market reforms in Bangladesh. *Global Journal of Business Research*, 3(1), 1-14.

<sup>&</sup>lt;sup>204</sup> Sadia, S. (2018). Determinants of dividend policy: Evidence from non-financial firms listed with Dhaka Stock Exchange. *IOSR Journal of Economics and Finance*, 9(5), 39-47.

earnings convey a return to the shareholders of the companies listed in Dhaka Stock Exchange (DSE).<sup>205</sup>

Ahmed (2000) stated that dividends convey valuable information to the investors of the listed companies in Bangladesh and thus supporting Dividend Relevance Theory (Linter, 1956).<sup>206</sup>

Misir (2010) stated that variations in dividend announcements impart tidings about the earnings of the company, which affects market price of shares of the companies listed in Dhaka Stock Exchange (DSE).<sup>207</sup>

Ali (2011) found that stock returns of companies listed on Dhaka Stock Exchange are positively influenced by market capitalization, industrial production index, price-earnings ratio while negatively influenced by foreign remittance and inflation. 208

Hasan, Akhter and Huda (2012) empirically confirmed the market price reaction of companies listed on Dhaka Stock Exchange over the announcements of cash dividend in the event date and post event date.<sup>209</sup>

Uddin (2009) stated that market price of share has a significant linear relationship with earnings per share, net asset value per share and dividend payout ratio.<sup>210</sup>

Al Masum (2017) showed that dividend yield has a significant negative relationship with share price. Further, earnings per share and return on equity have a significant positive

<sup>205</sup> Ahmed, M. (1991). Dividend policy: A study of enterprises registered with the Dhaka Stock Exchange. Dhaka University Journal of Business Studies, 12(2), 107-

<sup>&</sup>lt;sup>206</sup> Ahmed, M. (2000). Impact of dividend and retained earnings on stock prices in Bangladesh: An empirical investigation. Savings and Development, XXIV(1), 5-30. <sup>207</sup> Misir, M. (2010). Dividend announcements and contagion effects: an investigation on the firm listed with Dhaka Stock Exchange. *International Journal of* Management Studies, 17(1), 55-67.

<sup>&</sup>lt;sup>208</sup> Ali, M. (2011). Impact of micro and macroeconomic variables on emerging stock market return: A case on Dhaka Stock Exchange (DSE). Interdisciplinary Journal of Research in Business, 1(5), 08-16.

<sup>209</sup> Hasan, M., Akhter, S., & Huda, H. (2012). Cash dividend announcement effect: Evidence from Dhaka Stock Exchange. Research Journal of Finance and Accounting, 3(2), 12-24.

210 Uddin, M. (2009). Determinants of market price of stock: A study on bank leasing and industrial services and food company shares. Journal of Modern Accounting

and Auditing, 5(7), 1-7.

impact and profit after tax has a significant negative impact on the market price of shares of banking sector companies listed on Dhaka Stock Exchange.<sup>211</sup>

Ali and Chowdhury (2010) stated that dividend announcements do not impart any information due to strong contribution of the insider trading as well as some other influencing factors in the capital market of Bangladesh.<sup>212</sup>

Raju and Asaduzzaman (2017) analyzed the impact of dividend policy on the market price of shares in Bangladesh and found that investors prefer stock dividend to cash dividend.<sup>213</sup>

The results of the empirical analysis of Misir and Khandoker (2017) evidenced that there exists dynamic relationship among earnings, dividends, and share prices of firms listed in Dhaka Stock Exchange (DSE).<sup>214</sup>

Islam, Salam and Hasan (2015) found that EPS is highly correlated to share price movements in the capital market of Bangladesh.<sup>215</sup>

Mamun, Hoque and Mamun (2013) showed that dividend declarations do not convey any gain to the investors; rather they incur loss due to considerable decline in share prices both in pre-dividend and post-dividend periods.<sup>216</sup>

Rashid and Rahman (2008) identified the positive but insignificant relationship between share price volatility and dividend yield.<sup>217</sup>

<sup>&</sup>lt;sup>211</sup> Al Masum, A. (2017). Dividend policy and its impact on stock price – A study on commercial banks listed in Dhaka Stock Exchange. *International Journal of Scientific & Engineering Research*, 3(1).

<sup>&</sup>lt;sup>212</sup> Ali, M., & Chowdhury, T. (2010). Effect of dividend on stock price in emerging stock market: A study on the listed private commercial banks in DSE. *International Journal of Economics and Finance*, 2(4), 52-64. doi: 10.5539/ijef.v2n4p52

<sup>&</sup>lt;sup>213</sup> Raju, M., & Asaduzzaman, A. (2017). The impact of dividend policy on stock price: A study of fuel, power and cement industry in Bangladesh. *IOSR Journal of Economics and Finance*, 08(03), 84-91. doi: 10.9790/5933-0803048491

<sup>&</sup>lt;sup>214</sup> Misir, M., & Khandoker, M. (2017). Dynamics of earnings, dividends, and stock prices: A study on Dhaka Stock Exchange. *Journal of Business Studies*, XXXVIII(3), 217-231.

<sup>&</sup>lt;sup>215</sup> Islam, M., Salam, M., & Hasan, M. (2015). Factors affecting the stock price movement: A case study on Dhaka Stock Exchange. *International Journal of Business And Management*, 10(10). doi: 10.5539/ijbm.v10n10p253

<sup>&</sup>lt;sup>216</sup> Mamun, A., Hoque, N., & Mamun, A. (2013). Stock price reaction to dividend announcement: The case of Bangladesh capital market. *Journal of Economics and Sustainable Development*, 4(8), 89-98.

<sup>&</sup>lt;sup>217</sup> Rashid, A., & Rahman, A. (2008). Dividend policy and stock price volatility: Evidence from Bangladesh. *Journal of Applied Business and Economics*, 8(4), 71-81.

Zaman (2011) found that a positive correlation exists between dividend policy of commercial banks listed in Dhaka Stock Exchange and their respective market returns in 2008 but with time, the correlation becomes negative.<sup>218</sup>

Mobarek and Mollah (2005) showed that earnings yield, size, cash flow yield, volume of shares traded, price to book value have a significant influence on share returns of companies listed in Dhaka Stock Exchange.<sup>219</sup>

Islam (2019) showed that returns on equity of companies under the fuel & power sector listed in Dhaka Stock Exchange have significant positive relationship with dividend per share and retention ratio and negative relationship with profit after tax.<sup>220</sup>

Uddin and Chowdhury (2005) stated that shareholders do not gain value from dividend announcements of the companies listed on Dhaka Stock Exchange and payments of dividend do not provide any signal to the investors.<sup>221</sup>

Afzal and Hossain (2011) showed informational inefficiency in Dhaka Stock Exchange (DSE) by investigating the causal relationship between four macroeconomic variables.<sup>222</sup>

Masum (2014) found that share prices of banks listed in Dhaka Stock Exchange is significantly affected by dividend policy of the banks.<sup>223</sup>

Islam, Khan, Choudhury and Adnan (2014) found that share price of banks of Dhaka Stock Exchange does not move as fast as the EPS move. They also found that the share price movement depends on micro and macroeconomic factors on the economy.<sup>224</sup>

<sup>&</sup>lt;sup>218</sup> Zaman, S. (2011). Is dividend policy an important determinant of market performance: Focus on private banks of Bangladesh. World Review of Business Research,

I(4), 135-141.

219 Mobarek, A., & Mollah, A. (2005). The general determinants of share returns: An empirical investigation on the Dhaka Stock Exchange. Review of Pacific Basin

<sup>&</sup>lt;sup>10</sup> Islam, M. (2019). Effect of dividend on stock price: A case of fuel and power industries in Bangladesh. International Journal of Accounting and Financial Reporting, 9(2), 87-98. doi: 10.5296/ijafr.v9i2.14715

<sup>&</sup>lt;sup>221</sup> Uddin, M., & Chowdhury, G. (2005). The effect of dividend announcement on shareholders' value: Evidence from Dhaka Stock Exchange. Journal of Business Research, 7, 61-72.

<sup>&</sup>lt;sup>2</sup> Afzal, N., & Hossain, S. (2011). An empirical analysis of the relationship between macroeconomic variables and stock prices in Bangladesh. The Bangladesh Development Studies, 34(4), 95-105.

<sup>223</sup> Masum, A. (2014). Dividend policy and its impact on stock price – A study on commercial banks listed in Dhaka Stock Exchange. Global Disclosure of Economics and Business, 3(1), 9-20.

224 Islam, M., Khan, T., Choudhury, T., & Adnan, A. (2014). How earning per share (EPS) affects on share price and firm value. European Journal Of Business And

Management, 6(17), 97-101.

Al- Hasan, Asaduzzaman and al Karim (2013) evaluated the effect of dividend policy on market price of share in the context of Bangladesh. The study has found that the effect of dividend payout is more on market price than retention.<sup>225</sup>

Haque and Faruquee (2013) observed that the market price of shares of companies under pharmaceuticals and chemicals sector in Dhaka Stock Exchange is very insensitive toward fundamentals of companies and significantly influenced by the impact of unauthorized information.<sup>226</sup>

Islam (2018) stated that large size, high risk, low leveraged, medium P/E ratio and earlier listed firms have the highest payouts in the banking sector of Bangladesh.<sup>227</sup>

Alam, Miah and Karim (2016) found that earnings per share (EPS), net asset value per share (NAVPS), price earnings (P/E), consumer price index (CPI) are significantly instrumental in affecting share prices of companies listed under cement sector in Dhaka Stock Exchange (DSE).<sup>228</sup>

Ali (2017) observed that a very few company's share price in Dhaka Stock Exchange (DSE) are making efforts to run with P/E ratio.<sup>229</sup>

Rahman and Rahman (2008) observed that the ex-dividend prices in Dhaka Stock Exchange (DSE) increase instead of dropped, showing a clear preference for capital gains without having any focus on dividends.<sup>230</sup>

Uddin and Uddin (2014) found no effect of dividend announcements on share prices of Dhaka Stock Exchange (DSE) over the observation periods.<sup>231</sup>

<sup>225</sup> Al- Hasan, M., Asaduzzaman, M., & al Karim, R. (2013). The effect of dividend policy on share price: An evaluative study. IOSR Journal of Economics and Finance, 1(4), 06-11. doi: 10.9790/5933-0140611

<sup>226</sup> Haque, S., & Faruquee, M. (2013). Impact of fundamental factors on stock price: A case based approach on pharmaceutical companies listed with Dhaka Stock Exchange. International Journal of Business and Management Invention, 2(9), 34-41.

<sup>&</sup>lt;sup>227</sup> Islam, M. (2018). Dividend practices in listed banks of Bangladesh. Copernican Journal of Finance & Accounting, 7(2), 43-61. doi: 10.12775/cjfa.2018.008 <sup>228</sup> Alam, S., Miah, M., & Karim, M. (2016). Analysis on factors that affect stock prices: A study on listed cement companies at Dhaka Stock Exchange. *Research* Journal of Finance and Accounting, 7(18), 93-113.

<sup>229</sup> Ali, M. (2017). Movement of PE ratio and its impact on price fluctuations: A case study of Dhaka Stock Exchange in Bangladesh. Global Journal of Management and Business Research, 17(1), 53-60.

230 Rahman, M., & Rahman, M. (2008). Stock price behavior around ex-dividend day: Evidence from Dhaka Stock Exchange. Journal of Business Administration,

<sup>34(1 &</sup>amp; 2).

The findings of the study of Islam, Humyra and Sultana (2015) observed that the reaction of share prices to dividend omission announcement is statistically significant in Dhaka Stock Exchange.<sup>232</sup>

Golder, Akter and Sheikh (2019) found that announcement of dividend affects the price of mutual funds listed on Dhaka Stock Exchange (DSE).<sup>233</sup>

Ghosh and Ghosh (2015) found that share price movement is positively influenced by net asset value per share, earnings per share and return on equity in Dhaka Stock Exchange  $(DSE)..^{234}$ 

Chowdhury, Sarwar and Hamid (2019) found no statistical valid effects of corporate disclosure on price movement for the companies listed in Dhaka Stock Exchange  $(DSE)^{235}$ 

<sup>231</sup> Uddin, M., & Uddin, M. (2014). Dividend announcement of the commercial banks in DSE: Scenario and effect on stock price. International Journal of Ethics in

Social Sciences, 2(1), 143-155.

232 Islam, M., Humyra, M., & Sultana, M. (2015). The impact of dividend omission announcement on market price of manufacturing companies: A study on Dhaka Stock Exchange (DSE). Al-Barkaat Journal of Finance & Management, 7(1), 60-69. doi: 10.5958/2229-4503.2015.00005.3

<sup>233</sup> Golder, U., Akter, S., & Sheikh, M. (2019). Response of dividend announcement on the price of mutual fund: A comprehensive study on mutual fund listed in Dhaka Stock Exchange (DSE). International Journal of Scientific Research and Management, 7(8), 1276-1286. doi: 10.18535/ijsrm/v7i8.em02

<sup>234</sup> Ghosh, P., & Ghosh, S. (2015). Stock price adjustment to corporate accounting disclosure: A quantitative study on Dhaka Stock Exchange (DSE), Bangladesh. International Journal of Accounting and Financial Reporting, 5(2), 122-132. doi: 10.5296/ijafr.v5i2.8258

235 Chowdhury, A., Sarwar, M., & Hamid, M. (2019). Effects of corporate disclosure on share price movement: An empirical study on listed companies in Dhaka

Stock Exchange. Frontiers in Management Research, 3(3), 85-91. doi: 10.22606/fmr.2019.33001

# 3.4 SUMMARY OF LITERATURE REVIEW

The pioneering work on the determinants of dividend policy by Lintner (1956) provided that current profits and lagged dividends influence the dividend policy of companies. Following Lintner (1956), there have been various attempts to identify the determinants of dividend policy for different markets. A snapshot of the vast literature on foreign context available in this area is provided in Table 3.1.

Table: 3.1 Factors Influencing Dividend Policy – Studies on Foreign Context

Sl. No.	Author	Factors Identified	Country
1.	Likitwong Kajon (2019)	Profitability, Firm Size, Cash Flow from Operation, Dividend Payment and Dividend Yield	Thailand
2.	Roj (2019)	Profitability, Measures of Size, Investment Opportunities, Leverage and Liquidity	Poland
3.	Baker, Dewasiri, Yatiwelle Koralalage and Azeez (2019)	Earnings, Firm Size, Past Dividends, Investment Opportunities, Industry Impact, Corporate Governance, Free Cash Flow, Profitability, Concentrated Ownership, Net Working Capital and Investor Preference	Sri Lanka
4.	Yusuf (2019)	Liquidity and Growth Opportunities	Nigeria
5.	Wadhwa (2019)	Profitability, Risk, Size, Ownership and Financial Leverage	India
6.	Ahmed, Rafay and Ahmed (2018)	Liquidity and Financial Leverage	Pakistan
7.	Sahi and Nancy (2018)	Profitability, P/B Value Ratio and Risk	India
8.	Hung, Ha and Binth (2018)	Firm Size, Return on Total Assets and Revenue Growth Rate	Vietnam
9.	Jaara, Alashhab and Jaara (2018)	Age, Size and Profitability	Jordan
10.	Vanteeva and Hickson (2018)	State's Overall Industrial Strategy	Russia
11.	Hooshyar, Mohammadi and Valizadeh (2017)	Profitability, Current Ratio and Financial Leverage	Iran
12.	Tanjung (2017)	Profitability, Leverage and Institutional ownership	Indonesia
13.	Gupta (2017)	Ownership Structure, Debt/Equity, Investment Policy, Liquidity, Dividend Yield, Shareholders'	India

		Returns, Taxation and Growth Prospects	
14.	Chesini and Staniszewska (2017)	Dividend Yield and Liquidity in Poland; Profitability and Leverage in Italy	Poland and Italy
15.	Martin Reyna (2017)	Ownership Structure	Mexico
16.	Yousuf and Ismail (2016)	Earnings, Debt, Size, Investment and Large Shareholders	Malaysia
17.	Jabbouri (2016)	Size, Current Profit, Liquidity, Leverage, Free Cash Flow and the State of the Economy	Middle East and North Africa (MENA)
18.	Aqel (2016)	Growth, Risk and Profitability	Palestine
19.	Banerjee (2016)	Leverage, PE Ratio and Return on Equity (ROE)	India
20.	Baker and Weigand (2015)	Stability of Past Dividends as well as Current and Anticipated Earnings	USA
21.	Abdul Kadir, Abdullah and Woei-Chyuan (2015)	Leverage, Cash Flow and Past Dividends	Nigeria
22.	Gladys and Gachunga (2015)	Investment Opportunities, Financial Leverage and Financial Risk	Nairobi
23.	Bushra and Mirza (2015)	Profitability, Size, Concentration of Ownership and Sales Growth	Pakistan
24.	Kazmierska- Jozkiak (2015)	Profitability and Leverage	Poland
25.	Kuzucu (2015)	Sustainable Change in Earnings, Stability and Level of Future Earnings and the Desire to Distribute a Portion of Earnings to Shareholders	Turkey
26.	Awad (2015)	Profitability, Leverage, Level of Risk and Size	Kuwait
27.	Yegon, Cheruiyot and Sang (2014)	Profitability, Investments and EPS	Kenya
28.	Maladjian and EI Khoury (2014)	Firm Size, Risk, Previous Year's Dividends, Investment Opportunity, Growth and Profitability	Lebanon
29.	Oloidi and Adeyeye (2014)	EPS, DPS t -1 and Payout Ratio	Nigeria
30.	Kozul and Mihalina (2013)	Profitability and Debt Level	Croatia
31.	Badu (2013)	Age of the Firm, Collateral and Liquidity	Ghana

32.	Musiega, Alala Donglas, Christopher and Robert (2013)	Return on Equity, Current Earnings and Growth Activities	Kenya
33.	Abu-Boanyah, Ayentimi and Frark (2013)	Prior Year's Dividend, Profitability and Size of the Firms	Ghana
34.	Arif and Akbarshah (2013)	Profitability, Tax, Size and Investment Opportunities	Pakistan
35.	Nnadi, Wogboroma and Kabel (2013)	Agency Costs, Profitability, Market Capitalization, Age and Growth of Companies	Africa
36.	Baker Powell (2012)	Stability of Earnings and the Level of Current and Expected Earnings	Indonesia
37.	Aggarwal and Dow (2012)	Firm Size, Profitability, Investment Opportunities and Firm Risk	Japan
38.	Patra, Poshawale and Ow- Young(2012)	Size, Profitability, Liquidity, Investment Opportunities, Financial Leverage and Business Risk	Greece
39.	Singhania and Gupta (2012)	Firm size, Growth of the Firms and Investment Opportunities	India
40.	Michaely and Roberts (2011)	Ownership Structure and Incentives	UK
41.	Al-Ajmi and Hussain (2011)	Lagged Dividend, Profitability, Cash Flows, Life Cycle and Zakat	Saudi Arabia
42.	Afzal and Mirza (2011)	Growth Opportunities, Proportion of Shares Held by Issuance Companies, Profitability and Leverage	Pakistan
43.	Basse and Reddemann (2011)	Inflation	USA
44.	Mirza and Afza (2010)	Managerial Ownership, Individual Ownership, Operating Cash Flow and Size	Pakistan
45.	Pourheidari (2009)	Investment Opportunities, Industry Type, Stability of Profitability and Cash Flow	Iran
46.	Andres, Betzer, Goergen and Renneboog (2009)	Cash Flow	German
47.	Cheng, Fung and Leung (2008)	Transparency and Good Governance	Hong Kong
48.	De Angelo, De Angelo and	Behavioral Biases at the Managerial Level and Individual Preferences of Controlling Shareholders	USA

G1 : (2000)	1
Skinner (2008)	i
(-000)	1

49.	Denis and Osobov (2008)	Size, Profitability and Retained Earnings	USA
50.	Al-Twaijry (2007)	Book Value and Cash per Share	Malaysia
51.	Amidn and Abor (2006)	Profitability, Cash Flow and Market-to-Book-Value	Ghana
52.	Stacescu (2006)	Profitability, Growth Opportunities, Riskiness, Price Volatility as well as Previous and Present Income Growth	Switzerland
53.	Naceur, Goaied and Belanes (2006)	Current Earnings, Past Dividends, Liquidity of Stock Market and Size of the Firms	Tunisia
54.	Baker, Mukherjee and Paskelian (2006)	Level of Current and Expected Future Earnings, Stability of Earnings, Current Degree of Financial Leverage and Liquidity Constraints	Norway
55.	Aivazian, Booth and Cleary (2003)	Profitability, Debt and Market to Book Value Ratio	USA
56.	Adaoglu (2000)	EPS	Turkey
57.	Hsu, Wang and Wu (1998)	Earnings Data	Taiwan
58.	Healy and Modigliani (1990)	Inflation	USA
59.	Lambert,Lanen and Larcker (1989)	Special Incentives of Managers	UK
60.	Bar-Yosef and Huftman (1986)	Projected Cash Flow and Uncertainty	UK

Apart from the studies conducted in foreign context, there are some empirical evidences in the context of Bangladesh. Table 3.2 provides a snapshot of available literature on Bangladesh context.

Table: 3.2 Factors Influencing Dividend Policy – Studies on Bangladesh Context

Sl. No.	Author	Author Factors Identified			
1.	Abu (2012) Islam and	Liquidity and Current Earnings	Bangladesh		
	Adnan (2018)				
2.	Islam (2018)	Lagged DPR, Size and Retained	Bangladesh		
		Earnings to Equity			

3.	Sadia (2018)	Previous Year's Dividend, Firm's	Bangladesh
		Risk and Size	
4.	Chowdhury and	Size of Firms and Last Year's	Bangladesh
	Jannatunnesa (2017)	Dividend	

5.	Hussain (2016)	Leverage, Liquidity, Firm Growth,	Bangladesh
		Previous Year's Dividends and	
		Profitability	
6.	Zaman (2015)	Profitability	Bangladesh
7.	Ahmed and Muktadir-Al	Market to Book Value Ratio,	Bangladesh
	–Mukit (2014)	Profitability and Corporate Tax	
8.	Hossain, Sheikh and	Size, Profitability, Managerial	Bangladesh
	Akterujjaman (2013)	Ownership and Earnings Volatility	
9.	Alam and Hossain	Leverage, Market Capitalization,	Bangladesh
	(2012)	Liquidity, Profitability and Growth	
10.	Huda and Farah (2011)	Profitability, Firm's Size, Retained	Bangladesh
		Earnings and Liquidity	
11.	Mollah (2009)	Lagged Dividends, Current	Bangladesh
		Profitability and Cash Flow	
12.	Imam and Malik (2007)	Imam and Malik (2007) Ownership Structure	
13.	Ahmed (1991)	P/E ratio	Bangladesh

Although many studies, mostly in the context of developed countries, were done to investigate the determinants of corporate dividend policy, different authors found different determinants of dividend policy. Empirically there exists a gap in this type of research. This study will, therefore, attempt to find out the determinants of dividend policy of firms listed in DSE.

Many empirical studies have been conducted to determine the effects of dividend on stock price. However, the findings of these studies vary from market to market and author to author. There are mainly two schools of thought about the impact of dividend on stock price. One school of thought follows the opinion of Gordon (1959) that dividend policy is relevant while another school of thought follows the opinion of Miller and Modigliani (1961) that dividend policy is irrelevant. Studies conducted by Golder, Akter and Sheikh (2019), Islam (2019), Bajaja and Jain (2019), Zainudin, Mahdzan and Yet (2018), Prabhakaran and Karthika (2018), Banerjee (2018), Ahmed (2018), Joshi and Mayur (2017), Memon, Channa and Khoso (2017), Velankar,

Chandani and Ahuja (2017), Warrad (2017), Misir and Khandoker (2017), Ngo and Cuong (2016), Priya and Mohanasundari (2016), Sharif, Ali and Jan (2015), Balagobei and Selvaratman (2015), Rahman (2015), Islam, Humyra and Sultana (2015), Masum (2014), Al-Hasan, Asaduzzaman and al Karim (2013), Dharmarathne (2013), Gupta, Dogra, Vashisht and Ghai (2012), Suwanna (2012), Hussainery, Zakaria, Muhammad and Zulkifli (2012), Hasan, Akhter and Huda (2012), Mgbame and Chijoke-Mgbame (2011), Zaman (2011), Misir (2010), Uddin (2009), Yilmaz and Gulay (2006), Baker, Veit and Powell (2001), Travlos, Trigeorgis and Vafeas (2001), Ahmed (2000), Richardson, Sefcik and Thompson (1986) and Ariff and Finn (1989) are among those who empirically proved that dividend has an impact on the stock price of the firm.in conformity with Gordon (1959, 1962 & 1963).

On the other hand, Seyedimany (2019), Vavilina, Levanova and Tkahenko (2019), Alaeto (2018), Dedunu (2018), Tharshiga and Velnamby (2017), Balakrishnam (2016), Geetha and Swaaminathan (2015), Uddin and Uddin (2014), Dhungel (2013), Ali and Chowdhury (2010), Rahman and Rahman (2008), Uddin and Chowdhury (2005), Allen and Rahim (1996), Miiler and Sholes (1982), Miller and Sholes (1978), Srivastava (1968) are among those who empirically showed that there is no relevance of dividend to stock price in line with Miller and Modigliani (1961).

Although numerous studies were done to investigate the impact of dividend policy on stock price of firms, there is no consensus among the researchers till today. Thus, dividend policy is still an unsolved problem. Moreover, most studies on this area have been conducted in developed stock markets. The current study, therefore, examines the impact of dividend policy on stock price of firms listed in Dhaka Stock Exchange.

# CHAPTER 4 RESEARCH METHODOLOGY

### 4.1 INTRODUCTION

Research methodology is a way to systematically solve the research problem (Kothari & Garg, 2019).<sup>236</sup> This chapter outlines the research method used in order to achieve the objectives outlined in Chapter One. Specifically, the chapter describes the theoretical framework, research design, population and sampling design, sample selection criteria, sample size determination, sample company profiles, sources of data, panel database construction, operational definitions of variables, hypotheses of the study, and data analysis techniques.

### **4.2 THEORETICAL FRAMEWORK**

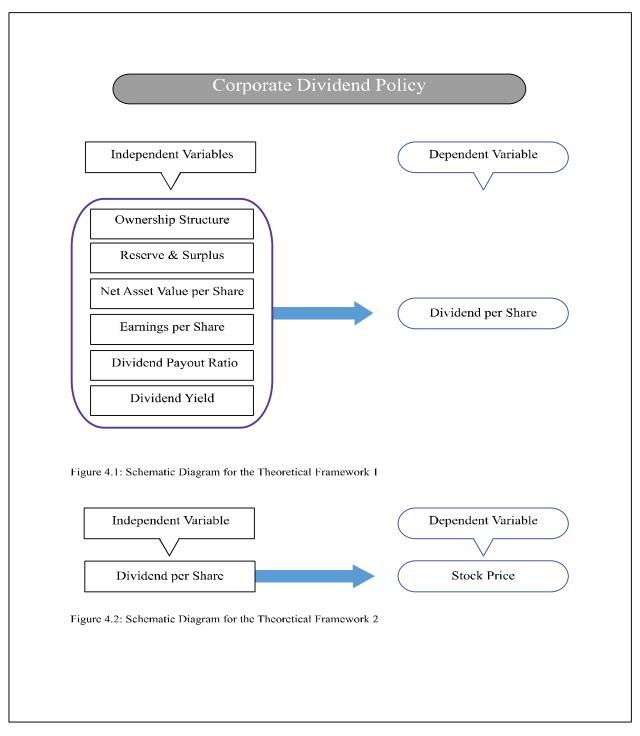
The theoretical framework is the basis on which the whole research work is founded. It determines and defines the significant variables in the situation that are relevant to the problem and subsequently describes and explains the interconnections among these variables (Sekaran & Bougie, 2013).<sup>237</sup> Based on the problem statement of the study and careful review of the literature, we have formulated two theoretical frameworks to analyze and interpret corporate dividend policy followed in Bangladesh. Different variables are used in formulating the theoretical framework.

In Theoretical Framework 1, we have shown the determinants of dividend policy. As the main measure of dividend policy, dividend per share is taken as dependent variable in line with previous studies. Based on previous studies, six company-specific observations, namely, ownership structure (OS), reserve & surplus (R & S), net asset value per share (NAVPS), earnings per share (EPS), dividend payout ratio (DPR) and dividend yield (DY) are taken as the determinants of dividend policy.

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<sup>&</sup>lt;sup>226</sup> Kothari, C., & Garg, G. (2019). Research methodology: Methods and techniques (4th ed., p. 7). New Delhi: New Age International (P) Ltd. <sup>237</sup> Sekaran, U., & Bougie, R. (2013). Research methods for business: A skill-building approach (6th ed., pp. 77-78). New Delhi: Wiley & Sons, Ltd.



In Theoretical Framework 2, we have shown the impact of dividend policy on the stock price of companies. Here, stock price (SP) is dependent variable and dividend per share (DPS) is independent variable.

### 4.3 RESEARCH DESIGN

A research design is a blueprint for the collection, measurement, and analysis of data, based on the research questions of the study. Selecting a design may be complicated by the availability of a large variety of methods, techniques, procedures, protocols, and sampling plans (Cooper & Schindler, 2008).<sup>238</sup> The current study is causal in nature. Causal research is conducted to find evidence of the cause-and-effect relationships (Malhotra & Dash, 2016).<sup>239</sup>

For the study, we have formulated two conceptual models. In Model 1, the dependent variable is Dividend per Share and the independent variables are Ownership Structure, Reserve & Surplus, Net Asset Value per Share, Earnings per Share, Dividend Payout Ratio and Dividend Yield. In Model 2, the dependent variable is Stock Price and the independent variable is Dividend per Share. For each model, the relationship and the strength of association between variables and the impact of independent variables on dependent variable have been studied using correlation and regression analysis. Moreover, analysis of variance (ANOVA) technique is used to identify the significant difference in dividend per share between intra-sector as well as inter-sector companies.

### 4.4 POPULATION AND SAMPLING DESIGN

The population refers to the entire group of people, events, or things of interest that the researcher wishes to investigate and wants to make inferences based on sample statistics (Sekaran & Bougie, 2013).<sup>240</sup> The population of the study comprises all the companies listed in Dhaka Stock Exchange. We have selected 8 major sectors on the basis of the highest number of companies listed during the study period. The working population of the study was 158 companies.

<sup>238</sup> Cooper, D., & Schindler, P. (2008). Business research methods (10th ed., p. 89). Singapore: McGraw-Hill Education (Asia).

<sup>239</sup> Malhotra, N., & Dash, S. (2016). Marketing research: An applied orientation (7th ed., p. 80). Nodia: Pearson India Education Services Pvt. Ltd.

<sup>240</sup> Sekaran, U., & Bougie, R. (2013). Research methods for business: A skill building approach (6th ed., p. 240). New Delhi: John Wiley & Sons, Ltd.

A sample design is a specified plan for establishing a sample from a given population (Kothari & Garg, 2019)<sup>241</sup>. Proportionate Stratified Sampling technique has been used for the study.

### 4.4.1 Sample Selection Criteria

- i. The sample period is 10 years from 2008 to 2017.
- ii. The companies having no time series data are excluded from sample.
- iii. The companies which are enlisted after the year 2008 or delisted from 2009 to 2017 are excluded.

This study includes both dividend paying and non-dividend paying companies that satisfy specified criteria in i-iii above to avoid selection bias.

### 4.4.2 Sample Size Determination

Sample size indicates the number of elements to be included in the study.

Yamane and Yamane (1967)<sup>242</sup> provide a simplified formula to calculate sample sizes.

$$n = \frac{N}{1 + N(e)^2}$$

n =Sample Size

N = Population Size

e = Level of Precision

Thus, the sample size would be

$$n = \frac{158}{1 + 158(.10)^2}$$

n = 61

<sup>&</sup>lt;sup>241</sup> Kothari, C., & Garg, G. (2019). Research methodology: Methods and techniques (4th ed., p. 52). New Delhi: New Age International (P) Ltd.

<sup>&</sup>lt;sup>242</sup> Yamane, T. and Yamane, T. (1967). Problems to accompany statistics: An introductory analysis. (2nd ed., p. 886). New York: Harper & Row.

The final sample consists of 61 companies listed in Dhaka Stock Exchange. The size of the sample from each sector is determined by proportionate allocation scheme (Chawla & Sondhi, 2016).<sup>243</sup>

$$n_i = n \times \frac{N_i}{N}$$

n = Sample Size

N = Population Size

 $n_i$  = Sample Size of each stratum

 $N_i$ = Population Size of each stratum

The sample companies are selected from each sector using Random Number Table.

<sup>&</sup>lt;sup>243</sup> Chawla, D., & Sondhi, N. (2016). Research methodology: Concepts and cases (2nd ed., p. 258). Nodia: Vikas Publishing House Pvt. Ltd.

# **4.4.3 Sample Company Profiles**

Scrip Code	Sector	Population Size (N)	Sample Size (n)	Company	Year of Listing
11101				1. AB Bank Limited	1983
11104				2. Islami Bank Bd Ltd.	1985
11106				3. Pubali Bank Ltd.	1986
11109				4. Uttara Bank Ltd.	1984
11112				5. Eastern Bank Ltd.	1993
11116	D1	20	12	6. Prime Bank Ltd.	2000
11117	Banks	30	12	7. Southeast Bank Ltd.	2000
11118				8. Dhaka Bank Ltd.	2000
11120				9. Social Islami Bank Ltd.	2000
11121				10. Dutch-Bangla Bank Ltd.	2001
11126				11. One Bank Ltd.	2003
11128				12. Mercantile Bank Ltd	2004
11111				1. IDLC Finance Limited	1992
11113				2. United Finance Limited	1994
11114	Financial	10		3. Uttara Finance and Investments	1997
11135	Institutions	19	7	4. LankaBangla Finance Ltd.	2006
11144				5. Phoenix Finance	2007
12151				6. ICB	1977
20621				7. Delta Brac Housing Fin.	2008
13201				1. Aftab Automobiles Limited	1987
13204	Б	1.0		2. Bangladesh Lamps Limited	1981
13206	Engineering	18	7	3. Eastern Cables Ltd.	1986
13209				4. Monno Jute Stafflers Ltd.	1982
13211				<ol><li>Singer Bangladesh Ltd.</li></ol>	1983
13224				6. Rangpur Foundry Ltd.	1999
13225				7. S. Alam Cold Rolled Steels Ltd.	2006
13203				1. Olympic Industries Limited	1989
14254				2. Apex Foods Limited	1981
14259	Food & Allied	1.4	_	British American Tobacco BD	1977
14263	Product	14	5	4. National Tea Company Limited	1979
14277				5. Agricultural Marketing Co.	1996
15303	Fuel & Dayyar	11	1	1. Eastern Lubricant Ltd.	1976
15307	Fuel & Power	11	4	2. Dhaka Electric Supply Co.	2006

15309				3. Jamuna Oil Com. Ltd	2007
15310				4. Meghna Petroleum Ltd.	2007
17408				1. Stylecraft Limited	1983
17410				2. Rahim Textile Mills Ltd.	1988
17412				3. Saiham Textile Mills Ltd.	1988
17415	Textile	20	8	4. Desh Garments Ltd.	1989
17421	Textile	20	0	5. Apex Spinning & Knitting Mills	1994
17434				6. Prime Textile Spinning Mills	1995
17442				7. H.R. Textile Ltd.	1997
17446				8. Square Textiles Limited	2002
18451				1. Ambee Pharmaceuticals Ltd.	1986
18454				2. GlaxoSmithKline (GSK) BD	1976
18455				3. ACI Limited	1976
18457	Pharmaceuticals			4. Renata Ltd.	1979
18460	& Chemicals	17	7	5. Reckitt Benckiser (Bangladesh)	1987
18464				6. The IBN SINA Pharmaceutical	1989
18480				7. ACI Formulations Ltd.	2008
25701				1. Bangladesh General Insurance	1989
25702				2. Green Delta Insurance	1989
25703				3. United Insurance Company	1990
25704				4. Peoples Insurance Company	1990
25705				5. Easter Insurance Co. Ltd.	1994
25707	Insurance	29	11	6. Phoenix Insurance Company	1994
25710				7. Karnaphuli Insurance Co. Ltd.	1995
25717				8. Pragoti Insurance Ltd.	1996
25720				9. Pioneer Insurance Company	2001
25729				10. Asia Pacific General Insurance	2006
25735				11. Continental Insurance Ltd.	2007
	Totals	158	61		_

 Table 4.1: Sample Company Profiles

### 4.5 SOURCES OF DATA

The study is analytical and empirical in nature and makes use of both primary and secondary data.

### 4.5.1 Collection of Primary Data

A structured questionnaire (Appendix –1) has been developed for collecting opinions of top management of the firms under study with a view to achieving two-fold objectives of the study. Before preparing the final questionnaire, two pilot surveys have been conducted to test the validity and relevance of the questions. At first, I personally surveyed to eight respondents and found some errors from their opinions. I revised the questionnaire and again surveyed to five respondents. Then, I prepared the questionnaire for final survey.

### 4.5.2 Collection of Secondary Data

The data are taken from Dhaka Stock Exchange, Website of Dhaka Stock Exchange Limited (www.dse.com.bd), Monthly Review of Dhaka Stock Exchange Limited, Annual Reports and Websites of the sample companies. The time period of this study is 10 years from 2008 to 2017.

### 4.6 PANEL DATABASE CONSTRUCTION

From the available financial data, the database was constructed with all financial data for all firms. The sample consists of 61 companies of which 12 are from banking sector, 7

from financial institutions sector, 7 from engineering sector, 5 from food & allied products sector, 4 from fuel and power sector, 8 from textile sector, 7 from pharmaceuticals and chemicals sector, and 11 from insurance sector. A balanced panel is constructed as the number of observations for each company is identical.

The present study includes both dividend-paying as well as non-dividend-paying firms. In the study sample of 61 companies, there are 27 companies that paid dividends throughout the study period of 10 years. Therefore, including all companies in the analysis should give the result more robustness.

### 4.7 OPERATIONAL DEFINITIONS OF VARIABLES

Dependent and independent variables used in this study have been defined and presented here. The variable whose value is influenced or is to be predicted is called the dependent variable. The dependent variable is the variable of primary interest of the researcher (Sekaran & Bougie, 2013) <sup>244</sup>. The variable that influences or impacts dependent variable is called an independent variable (Chawla & Sondhi, 2016)<sup>245</sup>.

<sup>&</sup>lt;sup>244</sup> Sekaran, U., & Bougie, R. (2013). Research methods forbusiness: A skill-building approach (6th ed., p. 69). New Delhi: John Wiley & Sons Ltd. <sup>245</sup> Chawla, D., & Sondhi, N. (2016). Research methodology: Concepts and cases (2nd ed., p. 36). Nodia: Vikas Publishing House Pvt. Ltd.

### 4.7.1 Dependent Variable for Model 1: Determinants of Dividend Policy

We have taken dividend per share as dependent variable, as it is the main measure of dividend policy.

### Y: Dividend per Share (DPS)

Dividend per share is the main measure of corporate dividend policies as it refers to the amount of dividend a shareholder will receive for each share held. Dividend per share is the portion of the profit after tax, which is distributed to the shareholders for their investment bearing risk in the company (Geetha and Swaaminathan, 2015).<sup>246</sup> It is mandatory and strategic distribution of portion of company's taxed earnings decided by the board of directors to a class of its shareholders and is generally referred as dividend per share (DPS) (Zafar, Chaubey and Kahlid, 2012).<sup>247</sup>

The dividend per share is arrived as follows:

 $DPS = \frac{Total\ amount\ of\ dividend\ paid\ to\ equity\ shareholders}{Number\ of\ equity\ shares\ outstanding}$ 

# 4.7.2 Independent Variables for Model 1: Determinants of Dividend Policy

Although there are many potential determinants of dividend policy, six common explanatory variables are used in the present study.

## **X1:** Ownership Structure (OS)

Several studies examined the relationship between ownership structure and dividend policy for different countries, for example, Gupta (2017) for India, Mirza and Afza (2010) for Pakistan, Maury and Pajuste (2002) for Finland, Gugler (2003) for Austria, Carvalhal-da-Silva and Leal (2003) for Brazil, Gugler and Yurtoglu (2003) for Germany, Wei, Zhang and Xiao (2003) for China, and Trojanowski (2004) for UK. Shareholding percentage of sponsors/directors/government has been considered for ownership structure

India. International Journal of Financial Management, 2(3), 79.

<sup>&</sup>lt;sup>246</sup> Geetha, E., & Swaaminathan, M. (2015), A Study on the factors influencing stock price: A comparative study of automobile and information technology industries stocks in India. *International Journal of Current Research and Academic Review*, 3(3), 97-109.

<sup>247</sup> Zafar, S. T., Chaubey, D. S., & Khalid, S. M. (2012). A Study on dividend policy and its impact on the shareholders' wealth in selected banking companies in

in the present study. Jensen, Solberg and Zorn (1992) <sup>248</sup> found that high insider ownership firm chooses lower level of dividend indicating that ownership structure is a factor in determining dividend policy.

### X2: Reserve & Surplus (R & S)

Reserve & Surplus (also called Retained Earnings) are found to be a crucial determinant of dividend policy. Earnings that companies keep for future growth and investment opportunities are referred to as reserve & surplus. In the US, Canada, UK, Germany, France, and Japan, the propensity to pay dividends is higher among larger, more profitable firms, and those for which retained earnings comprise a large fraction of total equity (Denis & Osobov, 2008).<sup>249</sup> Thus retained earnings are a major dividend representative. The tendency to distribute dividends is positively related to retained earnings (Bechmann & Raaballe, 2007).<sup>250</sup> On this context, reserve & surplus has been considered as one of the explanatory variables of dividend policy.

### **X3:** Net Asset Value per Share (NAVPS)

Net asset value per share measures the amount of assets, which the company has on behalf of each equity share. A high book value per share usually indicates that the company has a good record of past performances. Net Asset Value per Share is calculated as follows:

$$NAVPS = \frac{Equity\ Share\ Capital\ +\ Shareholders'Reserve}{Number\ of\ Equity\ Shares\ Outstanding}$$

In the present study, we have considered Net Asset Value per Share (NAVPS) as an independent variable in line with previous studies (Al-Twaijry, 2007).

<sup>&</sup>lt;sup>248</sup> Jensen, G., Solberg, D., & Zom, T. (1992). Simultaneous determination of insider ownership, debt, and dividend policies. The Journal of Financial and Quantitative Analysis, 27(2), 247-263. doi: 10.2307/2331370

Denis, D., & Osobov, I. (2008). Why do firms pay dividends? International evidence on the determinants of dividend policy. Journal of Financial Economics, 89(1), 62-82. doi: 10.1016/j.jfineco.2007.06.006

250 Bechmann, K., & Raaballe, J. (2007). The differences between stock splits and stock dividends: Evidence on the retained earnings hypothesis. *Journal of Business* 

Finance & Accounting, 34(3-4), 574-604. doi: 10.1111/j.1468-5957.2007.02041.x

### **X4:** Earnings per Share (EPS)

One of the key determinants of the dividend policy is the profitability of a company and this is measured by the EPS. It is assumed that there exists a positive relationship between EPS and a company's dividend policy. It refers to the ratio of the profit after tax of the company for any financial year after payment of preference dividend (Islam, Khan, Choudhury, Adnan, 2014).<sup>251</sup> Haddadin (2006)<sup>252</sup> found that EPS is the most statistically significant variable affecting payout ratio and found that it has a positive relationship with dividend policy. Mishra and Narender (1996)<sup>253</sup> analyzed the dividend polices of 39 state owned enterprises (SOEs) in India for the period 1984-85 to 1993-94. They found that EPS is a major factor in determining the dividend payout of SOEs. Earnings per Share can be arrived at as follows:

$$EPS = \frac{Net\ Profit\ after\ Tax - Preference\ Dividend}{Number\ of\ Equity\ Shares\ Outstanding}$$

### **X5: Dividend Payout Ratio (DPR)**

Dividend Payout Ratio refers to the percentage of earnings that is paid to shareholders as dividends. It is calculated by dividing the firm's cash dividend per share by its earnings per share (Gitman & Zutter, 2015).<sup>254</sup> This ratio does not always indicate the proportion of current earnings paid out only as dividend since dividend is allowed to be paid out of past accumulated earnings. A dividend payout of more than 100 percent definitely indicates the payment of dividend out of past accumulated earnings. We have used dividend payout ratio as independent variable in line with previous study that examined the impact of DPR on DPS and found that DPR influences the company's decision to

<sup>&</sup>lt;sup>251</sup> Islam, R., Khan, R., Choudhury, T., & Adnan, M. (2014) How earning per share (EPS) affects on share price and firm value, European Journal of Business and Management, 6(17), 97-108.

<sup>&</sup>lt;sup>252</sup> Haddadin, L. (2006). *The determinants of the dividend policy: Evidence from the Jordanian insurance industry* (Ph. D). University of Jordan. <sup>253</sup> Mishra, C., & Narender, V. (1996). Dividend policies of state owned enterprises in India – An analysis. *Finance India*, 10(3), 632-345.

<sup>&</sup>lt;sup>254</sup>Gitman, L., & Zutter, C. (2015). Principles of managerial finance, global edition (14th ed., p. 630). London: Pearson Education Limited.

increase or decrease dividend per share in the Nigerian Stock Exchange (Oloidi & Adeyeye, 2014). It can be calculated as:

Dividend Payout Ratio = 
$$\frac{\text{Dividend per Share}}{\text{Earinings per Share}} \times 100$$

### X6: Dividend Yield (DY)

Dividend yield is a ratio that informs shareholders of the annual amount of cash dividends distributed to common shareholders relative to the stock's market value (price) (Larson, Wild & Chiappetta, 1999).<sup>255</sup> The dividend yield of a stock signifies how much a company pays as dividend on its stock price. It is calculated by using the following formula:

$$DY = \frac{Dividend per Share}{Closing Price} \times 100$$

Dividend yield is considered to be an important variable by Gupta (2017), Chesini and Staniszewska (2017), Zahir (1992), Allen and Rachim (1996), Nishat and Irfan (2003), Rashid and Rahman (2009), Nazir, Nawaz, and Gilani (2010), Suleman, Asghar, Shah, and Hamid (2011), Hussainey, Mgbame, and Chijoke-Mgbame (2011).

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<sup>&</sup>lt;sup>255</sup>Larson, K., Wild, J., & Chiappetta, B. (1999). Fundamental accounting principles (15th ed., p. 627). New York: Irwin McGraw-Hill.

### 4.7.3 Dependent Variable for Model 2: Impact of Dividend Policy on Stock Price

### Y: Stock Price (SP)

Stock price is the cost of purchasing a security on an exchange. Stock price of the share depends upon many factors including dividend per share. The investors are always careful when purchasing stock in the company, as the stock price is known to fluctuate greatly in this specific market (Velankar, Chandani & Ahuja, 2017).<sup>256</sup> Investment in shares offers the benefit of liquidity as well as the opportunity to get high returns. Closing price of each company share has been considered as stock price for the present study.

### 4.7.4 Independent Variable for Model 2: Impact of Dividend Policy on Stock Price

# X1: Dividend per Share (DPS)

Dividend per share is the actual amount of cash dividend paid per share. It has a significant influence on the market price of shares. We have used dividend per share (DPS) as independent variable in line with previous studies (Zahir & Khanna, 1981; Srivastava,1984; Balkrishan, 1984; Karathanassis & Philippas, 1988; Zahir, 1992; Singania, 2006; Khan, 2009; Uddin, 2009) that examined the impact of dividend policy on stock price.

### 4.8 HYPOTHESES OF THE STUDY

Hypotheses are logically conjectured relationships between two or more variables expressed in the form of testable statements (Sekaran & Bougie, 2013)<sup>257</sup>. By testing the hypotheses and confirming the conjectured relationships, it is expected that solutions can be found to correct the problem encountered.

### 4.8.1 Null Hypotheses

<sup>&</sup>lt;sup>256</sup> Velankar, N., Chandani, A., & Ahuja, A. (2017). Impact of EPS and DPS on stock price: A study of selected public sector banks of India. Prestige International Journal of Management & IT - Sanchayan, 06(01), 111-121. doi: 10.37922/pijmit.2017.v06i01.008.

<sup>257</sup> Sekaran, U., & Bougie, R. (2013). Research methods for business: A skill-building approach (6th ed., p. 83). New Delhi: John Wiley & Sons Ltd.

- 1. H<sub>o</sub>: There is no significant difference in Dividend per Share between intra-sector as well as inter-sector companies of the selected sectors of Bangladesh.
- 2. H<sub>o</sub>: There is no significant relationship between Dividend per Share and Ownership Structure of the selected sectors of Bangladesh.
- 3. H<sub>o</sub>: There is no significant relationship between Dividend per Share and Reserve & Surplus of the selected sectors of Bangladesh.
- 4. H<sub>o</sub>: There is no significant relationship between Dividend per Share and Net Asset Value per Share of the selected sectors of Bangladesh.
- 5. H<sub>o</sub>: There is no significant relationship between Dividend per Share and Earnings per Share of the selected sectors of Bangladesh.
- 6. H<sub>o</sub>: There is no significant relationship between Dividend per Share and Dividend Payout Ratio (%) of the selected sectors of Bangladesh.
- 7. H<sub>o</sub>: There is no significant relationship between Dividend per Share and Dividend Yield of the selected sectors of Bangladesh.
- 8. H<sub>o</sub>: There is no significant relationship between Stock Price and Dividend per Share of the selected sectors of Bangladesh.

# 4.8.2 Alternative Hypotheses

- 1. H<sub>1</sub>: There is significant difference in Dividend per Share between intra-sector as well as inter-sector companies of the selected sectors of Bangladesh.
- 2. H<sub>1</sub>: There is significant relationship between Dividend per Share and Ownership Structure of the selected sectors of Bangladesh.
- 3. H<sub>1</sub>: There is significant relationship between Dividend per Share and Reserve & Surplus of the selected sectors of Bangladesh.
- 4. H<sub>1</sub>: There is significant relationship between Dividend per Share and Net Asset Value per Share of the selected sectors of Bangladesh.
- 5. H<sub>1</sub>: There is significant relationship between Dividend per Share and Earnings per Share of the selected sectors of Bangladesh.

- 6. H<sub>1</sub>: There is significant relationship between Dividend per Share and Dividend Payout Ratio (%) of the selected sectors of Bangladesh.
- 7. H<sub>1</sub>: There is significant relationship between Dividend per Share and Dividend Yield of the selected sectors of Bangladesh.
- 8. H<sub>1</sub>: There is significant relationship between Stock Price and Dividend per Share of the selected sectors of Bangladesh.

### 4.9 DATA ANALYSIS TECHNIQUES

Data have been presented using tables. Various graphical representations like bar charts and line charts have also been used to present data for the study. We have used ANOVA, Correlation, Backward Elimination Method of Multiple Regression and Simple Linear Regression for analyzing data,

### 4.9.1 Analysis of Variance (ANOVA)

Analysis of variance (ANOVA) is a technique of testing hypotheses about the significant difference in several population means (Bajpai, 2010)<sup>258</sup>. We have used the One-way ANOVA to test the significant difference between dividend per share of selected sectors and companies. That is, to test the differences between means of samples, one- way ANOVA has been run.

### 4.9.2 Correlation

Correlation measures the degree of association between two variables. We used Pearson correlation coefficient to examine the relationship between dividend and parameters, such as, ownership structure, reserve & surplus, net asset value per share, earnings per share, dividend payout ratio, dividend yield and stock price. The correlation test has been run for each selected sector and the variables mentioned above.

<sup>&</sup>lt;sup>258</sup> Bajpai, N. (2010). Business statistics (1st ed., p. 389). New Delhi: Dorling Kindersley (India) Pvt. Ltd.

### 4.9.3 Regression Analysis

The term "regression" was first used by Sir Francis Gatton in 1877. Regression analysis is the process of developing a statistical model, which is used to predict the value of a dependent variable by at least one independent variable (Bajpai, 2010)<sup>259</sup>. In a simple linear regression analysis, a straight line relationship between two variables is examined. Multiple regression analysis is a statistical technique to predict the variance in dependent variable by regressing the independent variables against it (Sekaran & Bougie, 2013)<sup>260</sup>. We have used multiple regression analysis for Model 1 with a view to developing a regression model by which the value of the dependent variable can be predicted with the help of the independent variables. We followed backward elimination method using SPSS software. The process of backward elimination starts with the full model including all the explanatory variables. If no insignificant explanatory variables in the model. In cases where insignificant explanatory variables are found, the explanatory variable with the highest p value is dropped from the model.

The general form of the multiple regression model is:

$$y_i = \beta_0 + \beta_1 x_i + \beta_2 x_2 + \beta_3 x_3 + \dots + \beta_k x_k + \varepsilon_i$$

Multiple regression equation is:

$$\hat{y} = b_0 + b_1 x_i + b_2 x_2 + b_3 x_3 + \dots + b_k x_k$$

We have also used simple linear regression analysis with a view to developing a regression model by which the value of the dependent variable can be predicted with the help of the independent variable, based on the linear relationship between these two. Simple regression investigates a straight-line relationship of the type

260 Sekaran, U., & Bougie, R. (2013). Research methods for business: A skill- building approach (6th ed., p. 396). New Delhi: John Wiley & Sons Ltd.

<sup>&</sup>lt;sup>259</sup> Bajpai, N. (2010). Business statistics (1st ed., p. 458). New Delhi: Dorling Kindersley (India) Pvt. Ltd.

$$Y = a + \beta X$$

Where,

Y = Dependent variable a = Y-intercept

X = Independent variable  $\beta = Slope coefficient$ 

### **Model Specification for the Present Study**

We have developed two regression models for our study in line with the aforesaid models.

### **Regression Model 1**

DPS = bo + b10S + b2 R&S + b3 NAVPS + b4 EPS + b5 DPR + b6 DY

Where,

DPS = Dividend per Share

bo = DPS - intercept

OS = Ownership Structure

R&S = Reserve & Surplus

NAVPS = Net Asset Value per Share

EPS = Earnings per Share

DPR= Dividend Payout Ratio

DY = Dividend Yield

b1 = Regression coefficient of OS

b2 = Regression coefficient of R&S

b3 = Regression coefficient of NAVPS

b4 = Regression coefficient of EPS

b5 = Regression coefficient of DPR

b6 = Regression coefficient of DY

# **Regression Model 2**

$$SP = bo + b1DPS$$

Where,

SP = Stock Price

bo = SP- intercept

DPS = Dividend per Share

b1 = Regression coefficient of DPS

# CHAPTER 5 DATA ANALYSIS & INTERPRETATION

### 5.1 INTRODUCTION

Dividend per share and payout ratio of each company have been observed and compared for the study period of ten years from 2008 to 2017 with a view to understanding the dividend policy and dividend trend in the companies of the selected sectors.

### **5.2 DIVIDEND PER SHARE**

Dividend per share (DPS) is a share of profit of the company divided among its shareholders. Dividend per share ignores earnings retained in the business. It is a reward for risk taken by the investors on their investments. DPS indicates the profitability aspect of the company and helps in indicating the growth of a firm. Therefore, a large number of present and potential investors may be very interested in dividend per share (DPS). Dividend per share (DPS) is the total amount of dividend paid to shareholders during the year divided by number of ordinary (equity) shares. The formula is:

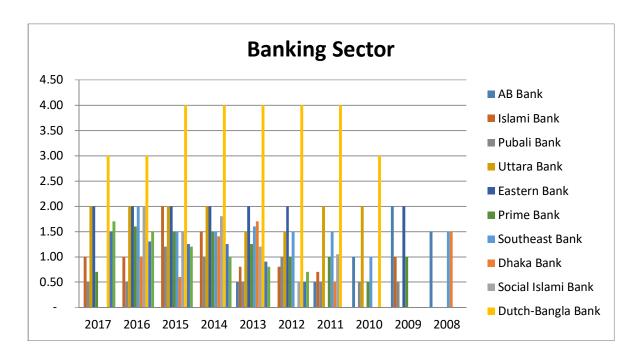
Dividend per Share = 
$$\frac{Total\ Dividend\ Paid\ for\ the\ Year}{No.of\ Equity\ shares}$$

Dividend per Share is the most common indicator to measure a company's dividend policy. In this study, we have utilized dividend per share to understand what amount is actually paid to shareholders on the basis of their ownership. Here, we have compared the dividend per share of each company sector-wise and at last dividend per share of each sector is also compared and analyzed. Let us observe what is paid to shareholders as dividend each year by the companies from Banking sector, Financial Institutions sector, Engineering sector, Food & Allied Product sector, Fuel & Power sector, Textile sector, Pharmaceuticals & Chemicals sector and Insurance sector. We will also observe whether dividend per share gradually increases or decreases or companies pay stable dividend or omit dividend.

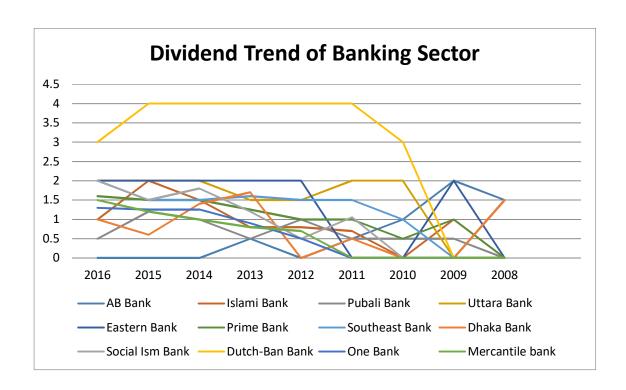
# **5.2.1 Banking Sector**

Table 5.1: Dividend per Share – Banking Sector

Dividend per Share											
Company	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	AVG
AB Bank	-	-	-	-	0.50	-	0.50	1.00	2.00	1.50	0.55
Islami Bank	1.00	1.00	2.00	1.50	0.80	0.80	0.70	-	1.00	-	0.88
Pubali Bank	0.50	0.50	1.20	1.00	0.50	1.00	0.50	0.50	0.50	-	0.62
Uttara Bank	2.00	2.00	2.00	2.00	1.50	1.50	2.00	2.00	1	1	1.50
Eastern Bank	2.00	2.00	2.00	2.00	2.00	2.00	-	-	2.00	-	1.40
Prime Bank	0.70	1.60	1.50	1.50	1.25	1.00	1.00	0.50	1.00	-	1.01
Southeast Bank	-	2.00	1.50	1.50	1.60	1.50	1.50	1.00	-	1.50	1.21
Dhaka Bank	-	1.00	0.60	1.40	1.70	-	0.50	-	-	1.50	0.67
Social Islami Bank	-	2.00	1.50	1.80	1.20	0.50	1.05	1	1	1	0.81
Dutch-Bangla Bank	3.00	3.00	4.00	4.00	4.00	4.00	4.00	3.00	-	-	2.90
One Bank	1.50	1.30	1.25	1.25	0.90	0.50	-	-	-	-	0.67
Mercantile Bank	1.70	1.50	1.20	1.00	0.80	0.70	ı	ı	1	-	0.69
AVERAGE	1.03	1.49	1.56	1.58	1.40	1.13	0.98	0.67	0.54	0.38	1.08



Graph 5.1: Dividend per Share – Banking Sector

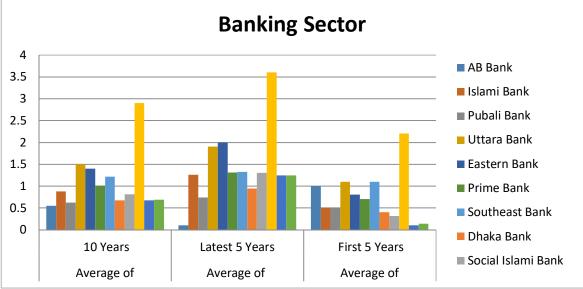


Graph 5.2: Dividend Trend of Banking Sector

Table 5.2: Average of Dividend per Share – Banking Sector

Company	Average of	Average of Latest	Average of First
Company	10 Years	5 Years	5 Years
AB Bank	0.55	0.10	1.00
Islami Bank	0.88	1.26	0.50
Pubali Bank	0.62	0.74	0.50
Uttara Bank	1.50	1.90	1.10
Eastern Bank	1.40	2.00	0.80
Prime Bank	1.01	1.31	0.70
Southeast Bank	1.21	1.32	1.10
Dhaka Bank	0.67	0.94	0.40
Social Islami Bank	0.81	1.30	0.31
Dutch-Bangla Bank	2.90	3.60	2.20
One Bank	0.67	1.24	0.10

Mercantile Bank	0.69	1.24	0.14
Average	1.08	1.41	0.74



Graph 5.3: Average of Dividend per Share – Banking Sector

Table 5.1 and Graph 5.2 show that the average dividend of the study period of 10 years from 2008 to 2017 of the Banking sector amounted to Tk.1.08; the highest Tk.1.58 in 2014 and the lowest Tk.0.38 in 2008. Dutch-Bangla Bank distributed the highest amount of average dividend per share (which is Tk.2.90), whereas AB Bank distributed the lowest amount of average dividend per share (which is Tk.0.55) to the shareholders. AB Bank follows Irregular Dividend Policy and skipped dividend for five years during the study period of ten years. Dutch-Bangla Bank follows Generous Dividend Policy and distributed the highest amount of dividend per share in 2011, which is Tk.4.00 and continued it for the subsequent four years till 2015, although the bank skipped paying dividend in 2008 and 2009. No banks paid dividend every year during the study period of 2008 to 2017. Pubali Bank and Prime Bank follow Low-Regular-and-Extra Dividend Policy, although they skipped dividend in 2008. Eastern Bank and Uttara Bank follow Constant Dividend per Share Policy, although Eastern Bank skipped dividend payments in 2008, 2010 and 2011 and Uttara Bank in 2008 and 2009. Islami Bank and Southeast

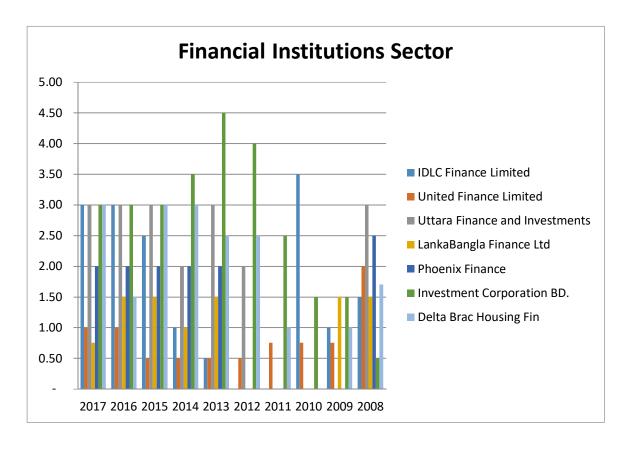
Bank follow Low-Regular-and-Extra Dividend Policy but they failed to pay dividend in two years. Dhaka Bank and Social Islami Bank are very irregular in paying dividend and skipped paying dividend in four years. These banks follow Irregular Dividend Policy. One Bank and Mercantile Bank started following Multiple Dividend Increase Policy and paid regular dividend with slight increase in every year since 2012. But these two banks paid no cash dividend from 2008 to 2011. In sum, it is found that the banking sector is not paying good amount of dividend to the shareholders and not attractive for the investors from the view point of Dividend per Share. The result is mixed regarding dividend trend and the type of dividend policy followed by the companies under the banking sector, which is depicted in Graph 5.2.

It is evident from the Table 5.2 the Graph 5.3 that average dividend per share of the latest five years of every bank is higher in comparison with that of the first five years with the only exception of AB Bank. The average of dividend per share of the latest five years of Banking Sector has increased from Tk.0.74 to Tk.1.41 in comparison with that of the first five years. This gradual increase in dividend per share of the banking sector may positively affect the shareholders' required rate of return and potential investors may be interested to invest in the sector. Dutch-Bangla Bank paid the highest average dividend in both the latest five years and the first five years, though the Bank skipped dividend in 2008 and 2009. AB Bank paid the lowest amount of average dividend in the latest five years, which is Tk. 0.10 and One Bank paid the lowest amount of average dividend in the first five years, which is Tk.0.10.

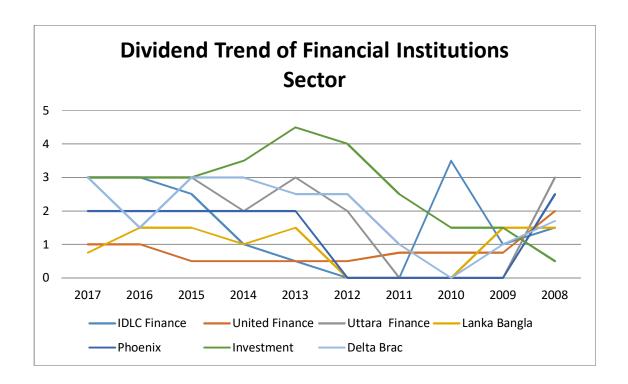
### **5.2.2 Financial Institutions Sector**

Table 5.3: Dividend per Share – Financial Institutions Sector

Dividend per Share											
Company	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	AVG
IDLC Finance Limited	3.00	3.00	2.50	1.00	0.50	-	-	3.50	1.00	1.50	1.60
United Finance Limited	1.00	1.00	0.50	0.50	0.50	0.50	0.75	0.75	0.75	2.00	0.83
Uttara Finance and Investments	3.00	3.00	3.00	2.00	3.00	2.00	-	-	-	3.00	1.90
LankaBangla Finance Ltd.	0.75	1.50	1.50	1.00	1.50	-	-	-	1.50	1.50	0.93
Phoenix Finance	2.00	2.00	2.00	2.00	2.00	-	-	-	-	2.50	1.25
ICB	3.00	3.00	3.00	3.50	4.50	4.00	2.50	1.50	1.50	0.50	2.70
Delta Brac Housing Finance	3.00	1.50	3.00	3.00	2.50	2.50	1.00	-	1.00	1.70	1.92
AVERAGE	2.25	2.14	2.21	1.86	2.07	1.29	0.61	0.82	0.82	1.81	1.59



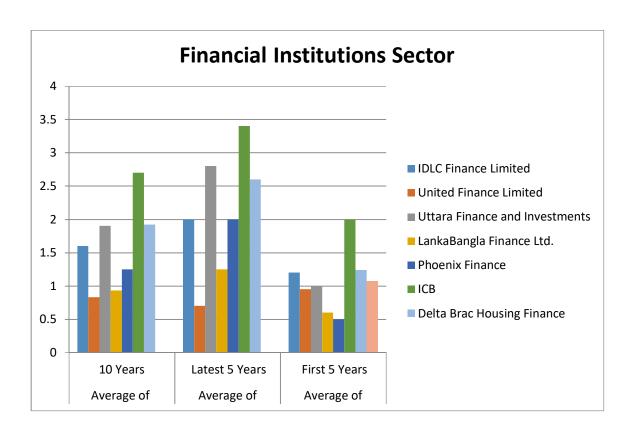
Graph 5.4: Dividend per Share – Financial Institutions Sector



Graph 5.5: Dividend Trend of Financial Institutions Sector

Table 5.4: Average of Dividend per Share – Financial Institutions

Company	Average of 10 Years	Average of Latest 5 Years	Average of First 5 Years		
IDLC Finance Limited	1.60	2.00	1.20		
United Finance Limited	0.83	0.70	0.95		
Uttara Finance and Investments	1.90	2.80	1.00		
LankaBangla Finance Ltd.	0.93	1.25	0.60		
Phoenix Finance	1.25	2.00	0.50		
ICB	2.70	3.40	2.00		
Delta Brac Housing Finance	1.92	2.60	1.24		
AVERAGE	1.59	2.11	1.07		



Graph 5.6: Average of Dividend per Share – Financial Institutions

Table 5.3 and Graph 5.4 show that ICB distributed the highest amount of average dividend per share, which is Tk. 2.70 and United Finance Limited distributed the lowest amount of average dividend per share, which is Tk. 0.83 to the shareholders. ICB paid good amount of dividend every year and follows Generous Dividend Policy. On the other hand, United Finance Limited follows Managed Dividend Policy and paid dividend every year during the study period of 2008 to 2017. Phoenix Finance followed Constant Dividend per Share Policy for the latest five years of the study period but skipped dividend for the previous consecutive four years. Uttara Finance and Investments as well as LankaBangla Finance Ltd. paid no cash dividend for three consecutive years. These two companies follow Irregular Dividend Policy, although Uttara Finance and Investments paid good amount of dividend for rest seven years. Delta Brac Housing Finance follows Lower-Regular-and-Extra Dividend Policy, but skipped dividend in 2010. Table 5.3 also shows that the average dividend of the study period of 10 years from 2008 to 2017 of the Financial Institutions sector amounted to Tk.1.59; the highest

Tk.2.25 in 2017 and the lowest Tk.0.61 in 2011. Dividend trend of Financial Institutions sector is shown in Graph 5.5.

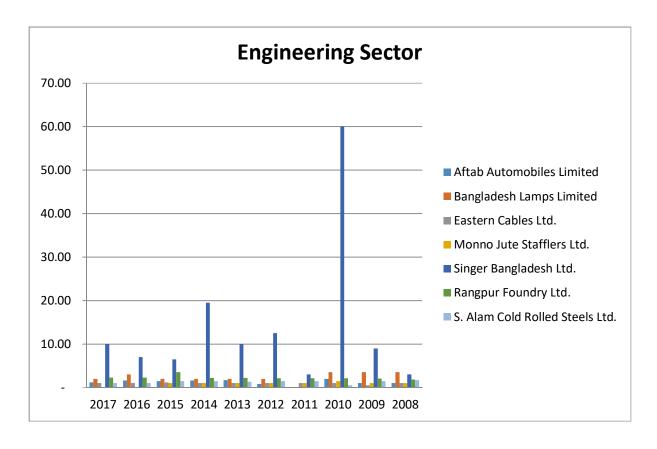
IDLC Finance Limited does not follow any pattern in paying dividend. In 2010 it paid Tk.3.50 per share as dividend and skipped dividend in the next two years and in 2013 only Tk. 0.50 per share is paid as dividend. So, IDLC Finance Limited follows Erratic Dividend Policy.

It is evident from the Table 5.4 and the Graph 5.6 that average dividend per share of the latest five years of every company has increased in comparison with that of the first five years with the only exception of United Finance Limited. The average of dividend per share of the latest five years of Financial Institutions Sector is increased from Tk. 1.07 to Tk. 2.11 in comparison with that of the first five years. This gradual increase in dividend per share of the Financial Institutions sector may positively affect the shareholders' required rate of return and potential investors may be interested to invest in the sector. ICB paid the highest average dividend in both the latest five years and the first five years. United Finance Limited paid the lowest amount of average dividend in the latest five years, which is Tk. 0.70. Phoenix Finance paid the lowest amount of average dividend in the first five years, which is Tk. 0.50.

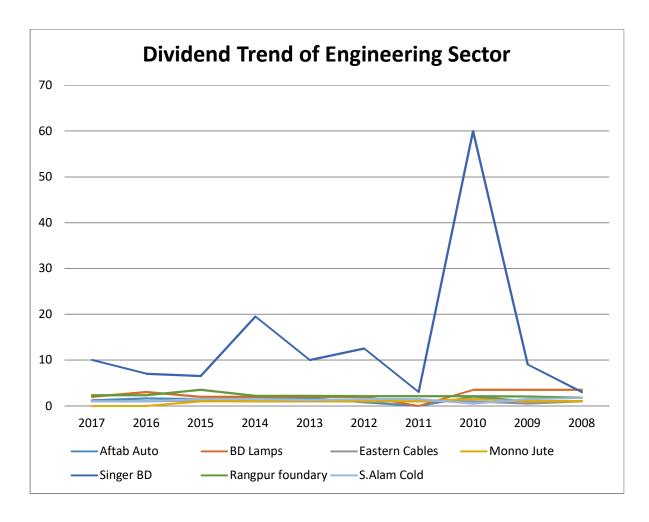
# **5.2.3 Engineering Sector**

Table 5.5: Dividend per Share – Engineering Sector

Dividend per Share											
Company	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	AVG
Aftab Automobiles Limited	1.20	1.60	1.50	1.60	1.70	0.80	-	2.00	1.00	1.00	1.24
Bangladesh Lamps Limited	2.00	3.00	2.00	2.00	2.00	2.00	-	3.50	3.50	3.50	2.35
Eastern Cables Ltd.	1.00	1.00	1.20	1.00	1.00	1.00	1.00	1.00	0.50	1.00	0.97
Monno Jute Stafflers Ltd.	-	-	1.00	1.00	1.00	1.00	1.00	1.50	1.00	1.00	0.85
Singer Bangladesh Ltd.	10.00	7.00	6.50	19.50	10.00	12.50	3.00	60.00	9.00	3.00	14.05
Rangpur Foundry Ltd.	2.30	2.30	3.50	2.20	2.20	2.10	2.10	2.10	2.05	1.80	2.27
S. Alam Cold Rolled Steels Ltd.	1.00	1.00	1.50	1.50	1.30	1.50	1.50	0.50	1.50	1.70	1.30
AVERAGE	2.50	2.27	2.46	4.11	2.74	2.99	1.23	10.09	2.65	1.86	3.29



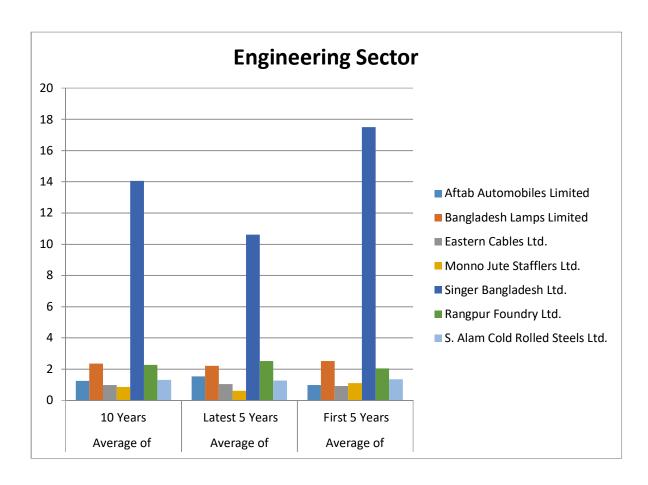
Graph 5.7: Dividend per Share – Engineering Sector



Graph 5.8: Dividend Trend of Engineering Sector

Table 5.6: Average of Dividend per Share – Engineering Sector

Company	Average of 10 Years	Average of Latest 5 Years	Average of First 5 Years
Aftab Automobiles Limited	1.24	1.52	0.96
Bangladesh Lamps Limited	2.35	2.20	2.50
Eastern Cables Ltd.	0.97	1.04	0.90
Monno Jute Stafflers Ltd.	0.85	0.60	1.10
Singer Bangladesh Ltd.	14.05	10.60	17.50
Rangpur Foundry Ltd.	2.27	2.50	2.03
S. Alam Cold Rolled Steels Ltd.	1.30	1.26	1.34
AVERAGE	3.29	2.82	3.76



Graph 5.9: Average of Dividend per Share – Engineering Sector

Table 5.5 and Graph 5.7 show that Singer Bangladesh Limited distributed the highest amount of average dividend per share, which is Tk. 14.05 and Monno Jute Stafflers Ltd. distributed the lowest amount of average dividend per share, which is Tk. 0.85 to the shareholders. Aftab Automobiles Limited and Bangladesh Lamps Limited skipped dividend in 2011 and Monno Jute Stafflers Ltd. Skipped dividend in 2016 and 2017. All others sample companies paid dividend every year during the study period of 2008 to 2017. The highest average dividend of the Engineering sector amounted to Tk. 10.09 in 2010 and the lowest Tk. 1.23 in 2011. Aftab Automobile Limited and Bangladesh Lamps Limited follow Low-Regular-and-Extra Dividend Policy. Eastern Cables Limited follows Constant Dividend per Share Policy and Monno Jute Stafflers Limited follows Irregular

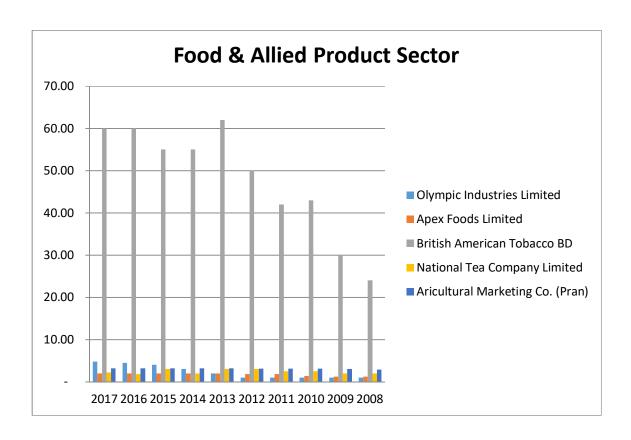
Dividend Policy. Singer Bangladesh Ltd. does not follow any pattern of dividend payment. The fluctuation in the payment of dividend from year to year is very sharp. The range of dividend per share during the study period is Tk.3.00 to Tk.60.00. So, Singer Bangladesh Limited follows Erratic Dividend Policy. Rangpur Foundry Ltd. and S. Alam Cold Rolled Steels Ltd. use Managed Dividend Policy. Graph 5.8 shows a mixed trend of dividend per share of Engineering sector.

It is evident from Table 5.6 and Graph 5.9 that average dividend per share of the latest five years is Tk. 2.82, which has increased by Tk. 0.94 in comparison with that of the first five years. Average dividend per share of three companies out of seven sample companies have increased in the latest five years in comparison with the first five years. That is, average dividend per share of four companies out seven sample companies decreased in the latest five years in comparison with the first five years. Singer Bangladesh Ltd. paid the highest average dividend per share in both the latest five years and the first five years. Eastern Cables Ltd. paid the lowest amount of average dividend per share in the first five years, which is Tk.0.90. Monno Jute Stafflers Ltd. paid the lowest amount of average dividend per share in the latest five years, which is Tk. 0.60

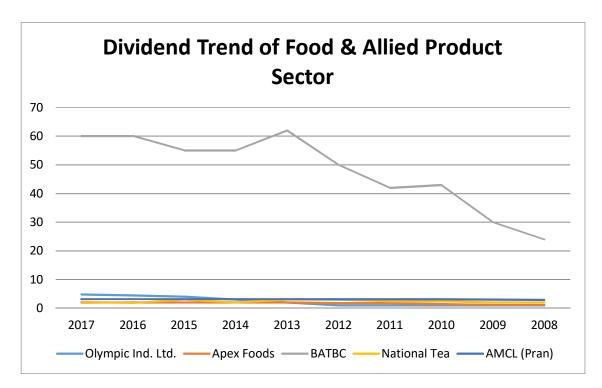
# 5.2.4 Food & Allied Product Sector

Table 5.7: Dividend per Share – Food & Allied Product Sector

Dividend per Share											
Company	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	AVG
Olympic Industries Limited	4.80	4.50	4.00	3.00	2.00	1.00	1.00	1.00	1.00	1.00	2.33
Apex Foods Limited	2.00	2.00	2.00	2.00	2.00	1.80	1.80	1.40	1.20	1.20	1.74
British American Tobacco BD	60.00	60.00	55.00	55.00	62.00	50.00	42.00	43.00	30.00	24.00	48.10
National Tea Company Limited	2.20	1.80	3.00	2.00	3.00	3.00	2.50	2.50	2.00	2.00	2.40
Agricultural Marketing Co. (Pran)	3.20	3.20	3.20	3.20	3.20	3.10	3.10	3.10	3.00	2.90	3.12
AVERAGE	14.44	14.30	13.44	13.04	14.44	11.78	10.08	10.20	7.44	6.22	11.54



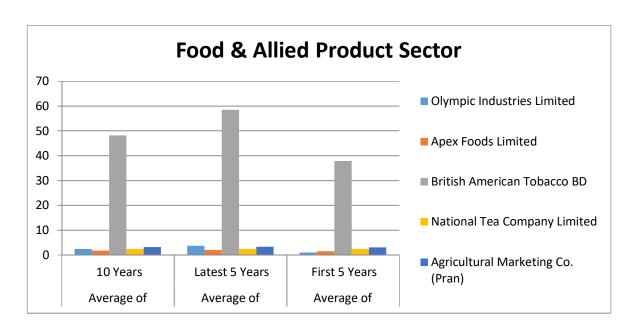
Graph 5.10: Dividend per Share – Food & Allied Product Sector



Graph 5.11: Dividend Trend of Food & Allied Product Sector

Table 5.8: Average of Dividend per Share – Food & Allied Product Sector

Company	Average of 10 Years	Average of Latest 5 Years	Average of First 5 Years
Olympic Industries Limited	2.33	3.66	1.00
Apex Foods Limited	1.74	2.00	1.48
British American Tobacco BD	48.10	58.40	37.80
National Tea Company Limited	2.40	2.40	2.40
Agricultural Marketing Co. (Pran)	3.12	3.20	3.04
AVERAGE	11.54	13.93	9.14



Graph 5.12: Average of Dividend per Share – Food & Allied Product Sector

Table 5.7 shows that the average dividend of the study period of 10 years from 2008 to 2017 of the Food & Allied Product sector amounted to Tk.11.54. Food & Allied Product companies distributed the highest amount of average dividend of Tk.14.44 during the years 2013 and 2017. The lowest average dividend is Tk.6.22 in 2008. British American Tobacco BD follows Generous Dividend Policy and distributed the highest amount of average dividend per share (which is Tk.48.10), whereas Apex Foods Limited distributed the lowest amount of average dividend per share (which is Tk.1.74) to the shareholders. British American Tobacco BD distributed the highest amount of dividend per share in 2013, which is Tk.62.00. All companies paid dividend every year during the study period of 2008 to 2017. Olympic Industries Limited paid a constant dividend per share of Tk.1.00 every year from 2008 to 2012 and then started following Multiple Dividend Increase Policy and the highest amount of dividend paid by Olympic Industries Limited is Tk.4.80 in 2017. Apex Foods Limited and Agricultural Marketing Co. (Pran) follow Constant Dividend per Share Policy and paid a dividend of Tk.2.00 and Tk.3.20 per share respectively every year from 2013 to 2017. National Tea Company Limited adopted Managed Dividend Policy and paid dividend every year ranging from Tk.1.80 to Tk.3.00

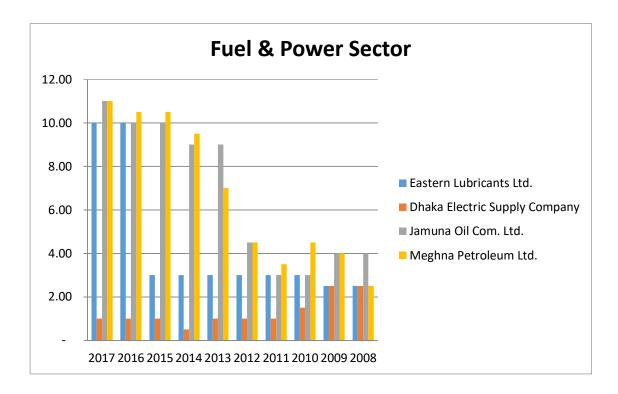
during the study period. Dividend trend of Food & Allied Product sector shown in Graph 5.11 indicates an upward trend of dividend from 2008 to 2017.

It is evident from the Table 5.8 the Graph 5.12 that average dividend per share of the latest five years of every company is higher in comparison with that of the first five years with the only exception of National Tea Company Limited, which is same for both the periods. The average of dividend per share of the latest five years of Food & Allied Product sector has increased from Tk.13.93 to Tk.9.14 in comparison with that of the first five years. This gradual increase in dividend per share of the Food & Allied Product sector may positively affect the shareholders' required rate of return and potential investors will be interested to invest in the sector. British American Tobacco BD paid the highest average dividend in both the latest five years and the first five years. Apex Foods Limited paid the lowest amount of average dividend in the latest five years, which is Tk.2.00 and in the first five years which is Tk.1.48.

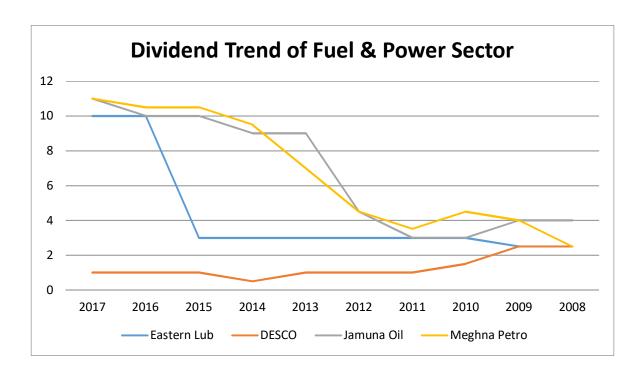
# 5.2.5 Fuel & Power Sector

Table 5.9: Dividend per Share – Fuel & Power Sector

Dividend per Share											
Company	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	AVG
Eastern Lubricants Ltd.	10.00	10.00	3.00	3.00	3.00	3.00	3.00	3.00	2.50	2.50	4.30
Dhaka Electric Supply Company	1.00	1.00	1.00	0.50	1.00	1.00	1.00	1.50	2.50	2.50	1.30
Jamuna Oil Com. Ltd.	11.00	10.00	10.00	9.00	9.00	4.50	3.00	3.00	4.00	4.00	6.75
Meghna Petroleum Ltd.	11.00	10.50	10.50	9.50	7.00	4.50	3.50	4.50	4.00	2.50	6.75
AVEREGE	8.25	7.88	6.13	5.50	5.00	3.25	2.63	3.00	3.25	2.88	4.78



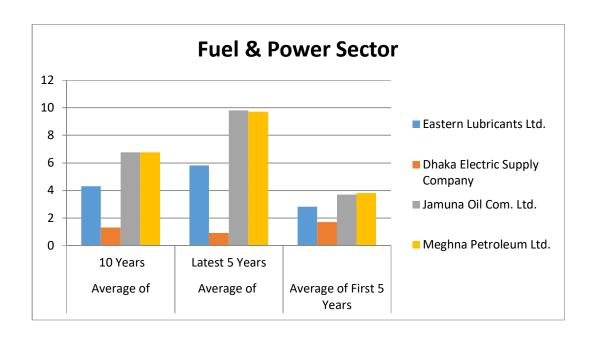
Graph 5.13: Dividend per Share – Fuel & Power Sector



Graph 5.14: Dividend Trend of Fuel & Power Sector

Table 5.10: Average of Dividend per Share – Fuel & Power Sector

Company	Average of	Average of Latest	Average of First
Company	10 Years	5 Years	5 Years
Eastern Lubricants Ltd.	4.30	5.80	2.80
Dhaka Electric Supply Company	1.30	0.90	1.70
Jamuna Oil Com. Ltd.	6.75	9.80	3.70
Meghna Petroleum Ltd.	6.75	9.70	3.80
AVEREGE	4.78	6.55	3.00



Graph 5.15: Average of Dividend per Share – Fuel & Power Sector

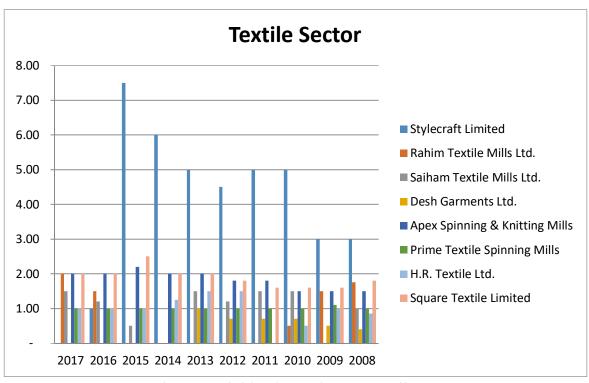
Table 5.9 shows that the average dividend of the study period of 10 years from 2008 to 2017 of the Fuel & Power sector amounted to Tk.4.78. Fuel & Power companies distributed the highest amount of average dividend of Tk.8.25 in 2017 and the lowest average dividend is Tk.2.63 in 2011. Jamuna Oil Com. Ltd. and Meghna Petroleum Ltd. follow Generous Dividend Policy and distributed the highest amount of average dividend per share (which is Tk.6.75 for each company), whereas Dhaka Electric Supply Company distributed the lowest amount of average dividend per share (which is Tk.1.30) to the shareholders. Jamuna Oil Com. Ltd. and Meghna Petroleum Ltd. distributed the highest amount of dividend per share in 2017, which is Tk.11.00 for each company. All companies paid dividend every year during the study period of 2008 to 2017. Eastern Lubricants Limited follows Constant Dividend per Share Policy and paid Tk.3.00 per share every year from 2010 to 2015 and then started paying Tk.10.00 per share since 2016. Dhaka Electric Supply Company paid dividend of Tk.1.00 per share from 2011 to 2017 with the exception of Tk.0.50 in 2014. So, we can say that Dhaka Electric Supply Company follows Low-Regular-and-Extra Dividend Policy. Dividend trend of Power & Fuel sector is shown in Graph 5.14.

It is evident from Table 5.10 and Graph 5.15 that average dividend per share of the latest five years of every company is higher in comparison with that of the first five years with the only exception of Dhaka Electric Supply Company. The average of dividend per share of the latest five years of Fuel & Power sector has increased from Tk.3.00 to Tk.6.55 in comparison with that of the first five years. This gradual increase in dividend per share of the Fuel & Power companies may positively affect the shareholders' required rate of return and potential investors will be interested to invest in the sector. Jamuna Oil Com. Ltd. paid the highest average dividend in the latest five years, which is Tk.9.80. Meghna Petroleum Limited paid the highest average dividend in the first five years, which is Tk.3.80. On the other hand, Dhaka Electric Supply Company paid the lowest amount of average dividend in both the latest five years, which is Tk.0.90 and the first five years, which is Tk.1.70.

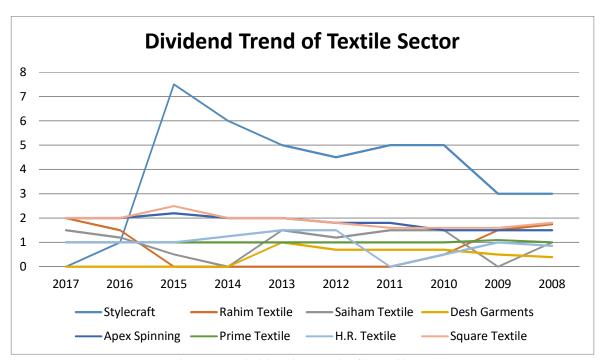
# **5.2.6 Textile Sector**

Table 5.11: Dividend per Share – Textile Sector

Dividend per Share											
Company	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	AVG
Stylecraft Limited	-	1.00	7.50	6.00	5.00	4.50	5.00	5.00	3.00	3.00	4.00
Rahim Textile Mills Ltd.	2.00	1.50	-	-	-	-	-	0.50	1.50	1.75	0.73
Saiham Textile Mills Ltd.	1.50	1.20	0.50	-	1.50	1.20	1.50	1.50	-	1.00	0.99
Desh Garments Ltd.	-	-	-	-	1.00	0.70	0.70	0.70	0.50	0.40	0.40
Apex Spinning & Knitting Mills	2.00	2.00	2.20	2.00	2.00	1.80	1.80	1.50	1.50	1.50	1.83
Prime Textile Spinning Mills	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.10	1.00	1.01
H.R. Textile Ltd.	1.00	1.00	1.00	1.25	1.50	1.50	-	0.50	1.00	0.85	0.96
Square Textile Limited	2.00	2.00	2.50	2.00	2.00	1.80	1.60	1.60	1.60	1.80	1.89
AVERAGE	1.19	1.21	1.84	1.53	1.75	1.56	1.45	1.54	1.28	1.41	1.48



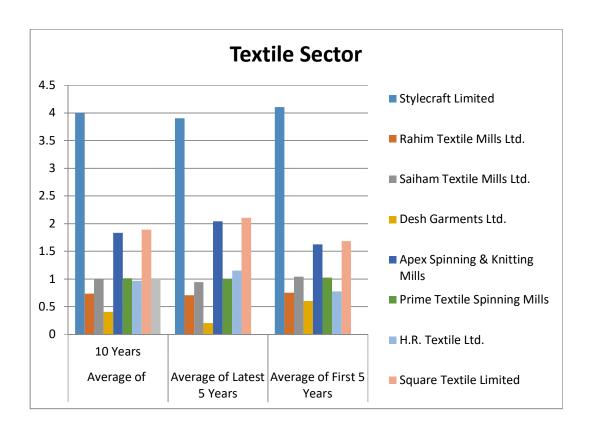
Graph 5.16: Dividend per Share – Textile Sector



Graph 5.17: Dividend Trend of Textile Sector

Table 5.12: Average of Dividend per Share – Textile Sector

Company	Average of	Average of Latest	Average of First
Company	10 Years	5 Years	5 Years
Stylecraft Limited	4.00	3.90	4.10
Rahim Textile Mills Ltd.	0.73	0.70	0.75
Saiham Textile Mills Ltd.	0.99	0.94	1.04
Desh Garments Ltd.	0.40	0.20	0.60
Apex Spinning & Knitting Mills	1.83	2.04	1.62
Prime Textile Spinning Mills	1.01	1.00	1.02
H.R. Textile Ltd.	0.96	1.15	0.77
Square Textile Limited	1.89	2.10	1.68
AVERAGE	1.48	1.50	1.45



Graph 5.18: Average of Dividend per Share – Textile Sector

Table 5.11 shows that the average dividend of the study period of 10 years from 2008 to 2017 of the Textile sector amounted to Tk.1.48. Textile companies distributed the highest amount of average dividend of Tk.1.84 in 2015 and the lowest average dividend is Tk.1.19 in 2017. Prime Textile Spinning Mills follows Constant Dividend per Share Policy and paid Tk.1.00 per share every year from 2008 to 2017 with the only exception of Tk.1.10 in 2009. Stylecraft Limited distributed the highest amount of average dividend per share (which is Tk.4.00), whereas Desh Garments Ltd. distributed the lowest amount of average dividend per share (which is Tk.0.40) to the shareholders. Stylecraft Limited distributed the highest amount of dividend per share in 2015, which is Tk.7.50, although the company skipped dividend in 2017 and only Tk.1.00 in 2016. So, Stylecraft Limited follows Erratic Dividend Policy. Apex Spinning & Knitting Mills, Prime Textile Spinning Mills and Square Textile Limited paid dividend every year during the study period of 2008 to 2017. Apex Spinning & Knitting Mills and Square Textile Limited follow a Low-Regular-and-Extra Dividend Policy. H.R. Textile Ltd. skipped dividend in

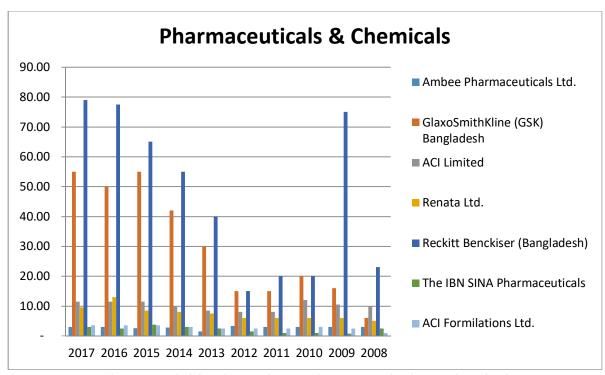
2011 and the company follows a Managed Dividend Policy. Rahim Textile Mills Limited skipped dividend in five consecutive years from 2011 to 2015, Saiham Textile Mills Ltd. skipped dividend in 2009 and 2014, Desh Garments Limited skipped dividend for four consecutive years from 2014 to 2017. All these companies follow Irregular Dividend Policy. Dividend trend of Textile sector is shown in Graph 5.12

It is evident from the Table 5.12 the Graph 5.18 that average dividend per share of the latest five years of Stylecraft Limited, Rahim Textile Mills Ltd., Saiham Textile Mills Ltd., Desh Garments Ltd. and Prime Textile Spinning Mills are lower in comparison with that of the first five years. On the other hand, average dividend per share of the latest five years of Apex Spinning & Knitting Mills, H.R. Textile Ltd. and Square Textile Limited are higher in comparison with that of the first five years. The average of dividend per share of the latest five years of Textile sector has increased from Tk.1.45 to Tk.1.50 in comparison with that of the first five years. Stylecraft Limited paid the highest average dividend in both the latest five years, which is Tk.3.90 and the first five years, which is Tk.4.10. Desh Garments paid the lowest amount of average dividend in both the latest five years, which is Tk.0.60.

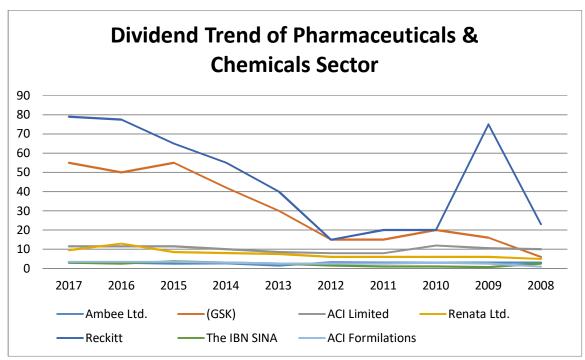
### 5.2.7 Pharmaceuticals & Chemicals Sector

Table 5.13: Dividend per Share – Pharmaceuticals & Chemicals Sector

Dividend Per Share											
Company	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	AVG
Ambee Pharmaceuticals Ltd.	3.00	3.00	2.60	2.80	1.50	3.30	3.00	3.00	3.00	3.00	2.82
GlaxoSmithKline (GSK) Bangladesh	55.00	50.00	55.00	42.00	30.00	15.00	15.00	20.00	16.00	6.00	30.40
ACI Limited	11.50	11.50	11.50	10.00	8.50	8.00	8.00	12.00	10.50	10.00	10.15
Renata Ltd.	9.50	13.00	8.50	8.00	7.50	6.00	6.00	6.00	6.00	5.00	7.55
Reckitt Benckiser (Bangladesh)	79.00	77.50	65.00	55.00	40.00	15.00	20.00	20.00	75.00	23.00	46.95
The IBN SINA Pharmaceuticals	3.00	2.50	3.75	3.00	2.50	1.50	1.00	1.00	0.75	2.50	2.15
ACI Formulations Ltd.	3.50	3.50	3.50	3.00	2.50	2.50	2.50	3.00	2.50	1.00	2.75
AVERAGE	23.50	23.00	21.41	17.69	13.21	7.33	7.93	9.29	16.25	7.21	14.68



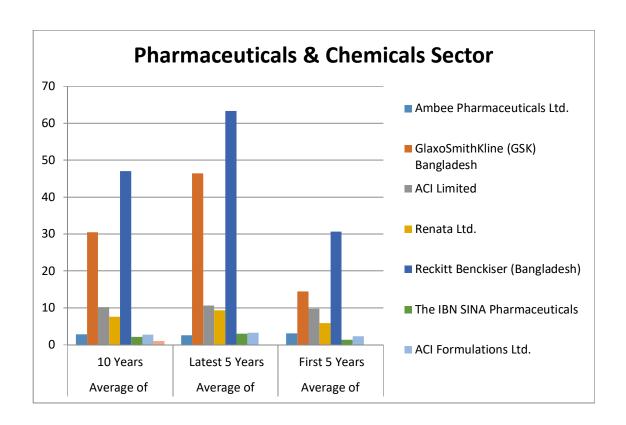
Graph 5.19: Dividend per Share- Pharmaceuticals & Chemicals Sector



Graph 5.20: Dividend Trend of Pharmaceuticals & Chemicals Sector

Table 5.14: Average of Dividend per Share – Pharmaceuticals & Chemicals Sector

Company	Average of 10 Years	Average of Latest 5 Years	Average of First 5 Years
Ambee Pharmaceuticals Ltd.	2.82	2.58	3.06
GlaxoSmithKline (GSK) Bangladesh	30.40	46.40	14.40
ACI Limited	10.15	10.60	9.70
Renata Ltd.	7.55	9.30	5.80
Reckitt Benckiser (Bangladesh)	46.95	63.30	30.60
The IBN SINA Pharmaceuticals	2.15	2.95	1.35
ACI Formulations Ltd.	2.75	3.20	2.30
AVERAGE	14.68	19.76	9.60



Graph 5.21: Average of Dividend per Share – Pharmaceuticals & Chemicals Sector

Table 5.13 shows that the average dividend of the study period of 10 years from 2008 to 2017 of the Pharmaceuticals & Chemicals sector amounted to Tk.14.68. Pharmaceuticals & Chemicals companies distributed the highest amount of average dividend of Tk.23.50 in 2017 and the lowest average dividend is Tk.7.21 in 2008. Ambee Pharmaceuticals Ltd., The IBN SINA Pharmaceuticals and ACI Formulations Ltd. follow Managed Dividend Policy and paid usual amount of dividend per share to the shareholders. Glaxosmithkine (GSK) Bangladesh and Reckitt Benckiser (Bangladesh) follow Generous dividend policy and paid very handsome amount of dividend per share to the shareholders. ACI Limited and Renata Ltd. follow Low-Regular-and-Extra Dividend Policy for the shareholders. Reckitt Benckiser (Bangladesh) distributed the highest amount of average dividend per share (which is Tk.46.95), whereas The IBN SINA Pharmaceuticals distributed the lowest amount of average dividend per share (which is Tk.2.15) to the shareholders. Reckitt Benckiser (Bangladesh) distributed the highest

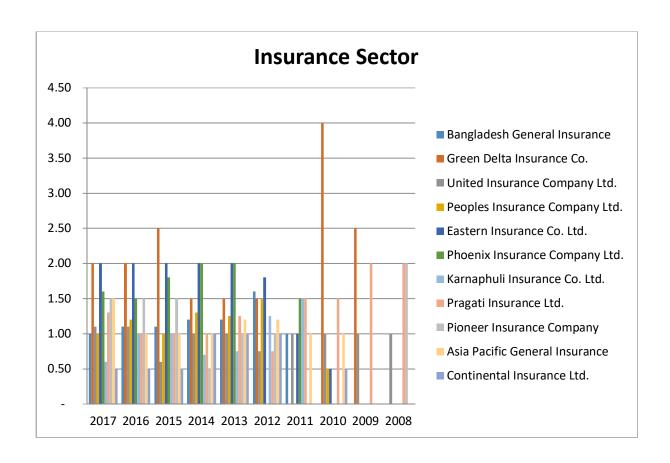
amount of dividend per share in 2017, which is Tk.79.00. Dividend trend of Pharmaceuticals & Chemicals sector is shown in Graph 5.20.

It is evident from the Table 5.14 the Graph 5.21 that average dividend per share of the latest five years of every company is higher in comparison with that of the first five years with the only exception of Ambee Pharmaceuticals Ltd. The average of dividend per share of the latest five years of Pharmaceuticals & Chemicals sector has increased from Tk. 9.60 to Tk. 19.76 in comparison with that of the first five years. This gradual increase in dividend per share of the Pharmaceuticals & Chemicals sector will positively affect the shareholders' required rate of return and potential investors will be interested to invest in the sector. Reckitt Benckiser (Bangladesh) paid the highest average dividend in both the latest five years and the first five years. Ambee Pharmaceuticals Limited paid the lowest amount of average dividend in the latest five years, which is Tk. 2.58. The IBN SINA Pharmaceuticals paid the lowest amount of average dividend in the first five years, which is Tk.1.35.

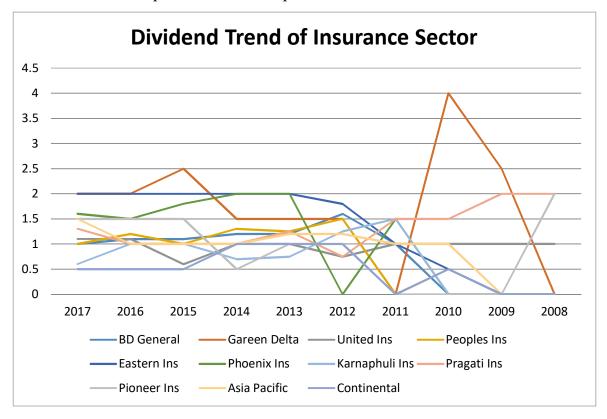
# **5.2.8 Insurance Sector**

Table 5.15: Dividend per Share – Insurance Sector

	Dividend per Share										
Company	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	AVG
Bangladesh General Insurance	1.00	1.10	1.10	1.20	1.20	1.60	1.00	-	-	-	0.82
Green Delta Insurance Co.	2.00	2.00	2.50	1.50	1.50	1.50	-	4.00	2.50	-	1.75
United Insurance Company Ltd.	1.10	1.10	0.60	1.00	1.00	0.75	1.00	1.00	1.00	1.00	0.96
Peoples Insurance Company Ltd.	1.00	1.20	1.00	1.30	1.25	1.50	-	0.50	-	-	0.78
Eastern Insurance Co. Ltd.	2.00	2.00	2.00	2.00	2.00	1.80	1.00	0.50	-	-	1.33
Phoenix Insurance Company Ltd.	1.60	1.50	1.80	2.00	2.00	-	1.50	-	-	-	1.04
Karnaphuli Insurance Co. Ltd.	0.60	1.00	1.00	0.70	0.75	1.25	1.50	-	-	-	0.68
Pragati Insurance Ltd.	1.30	1.00	1.00	1.00	1.25	0.75	1.50	1.50	2.00	2.00	1.33
Pioneer Insurance Company	1.50	1.50	1.50	0.50	1.00	1.00	-	-	-	2.00	0.90
Asia Pacific General Insurance	1.50	1.00	1.00	1.00	1.20	1.20	1.00	1.00	-	-	0.89
Continental Insurance Ltd.	0.50	0.50	0.50	1.00	1.00	1.00	-	0.50	-	-	0.50
AVERAGE	1.28	1.26	1.27	1.20	1.29	1.12	0.77	0.82	0.50	0.45	1.00



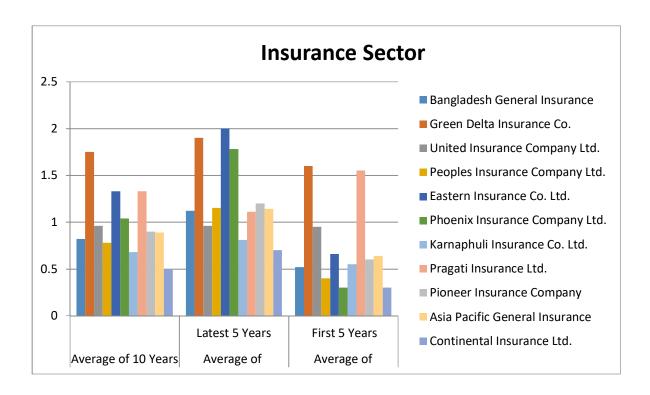
Graph 5.22: Dividend per Share – Insurance Sector



Graph 5.23: Dividend Trend of Insurance Sector

Table 5.16: Average of Dividend per Share – Insurance Sector

Company	Average of 10 Years	Average of Latest 5 Years	Average of First 5 Years
Bangladesh General Insurance	0.82	1.12	0.52
Green Delta Insurance Co.	1.75	1.90	1.60
United Insurance Company Ltd.	0.96	0.96	0.95
Peoples Insurance Company Ltd.	0.78	1.15	0.40
Eastern Insurance Co. Ltd.	1.33	2.00	0.66
Phoenix Insurance Company Ltd.	1.04	1.78	0.30
Karnaphuli Insurance Co. Ltd.	0.68	0.81	0.55
Pragati Insurance Ltd.	1.33	1.11	1.55
Pioneer Insurance Company	0.90	1.20	0.60
Asia Pacific General Insurance	0.89	1.14	0.64
Continental Insurance Ltd.	0.50	0.70	0.30
AVERAGE	1.00	1.26	0.73



Graph 5.24: Average of Dividend per Share – Insurance Sector

Table 5.15 shows that the average dividend of the study period of 10 years from 2008 to 2017 of the Insurance sector amounted to Tk.1.00; the highest Tk.1.29 in 2013 and the lowest Tk.0.45 in 2008. Green Delta Insurance Co. distributed the highest amount of average dividend per share (which is Tk.1.75), whereas Continental Insurance Ltd. distributed the lowest amount of average dividend per share (which is Tk.0.50) to the shareholders. United Insurance Company Ltd. and Pragati Insurance Ltd. paid dividend every year during the study period from 2008 to 2017. These companies follow Low-Regular-and-Extra Dividend Policy. Eastern Insurance Co. Ltd. skipped dividend for 2008 and 2009 and started following Constant Dividend per Share Policy since 2013 paying Tk.2.00 per share every year. Bangladesh General Insurance, Peoples Insurance Company Ltd., Phoenix Insurance Company Ltd., Karnaphuli Insurance Co. Ltd., Pioneer Insurance Company, Asia Pacific General Insurance and Continental Insurance Ltd. are

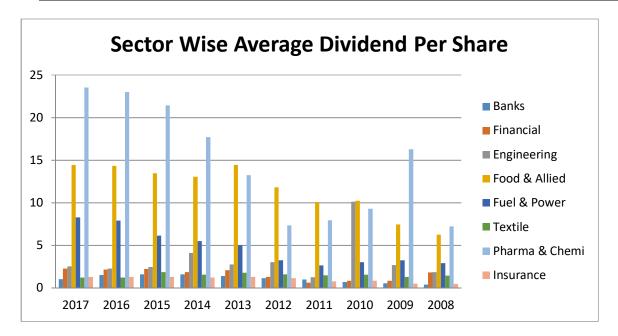
not regular in paying dividend. So, we can say that these companies follow Irregular Dividend Policy.

It is evident from the Table 5.16 the Graph 5.24 that average dividend per share of the latest five years of every company is higher in comparison with that of the first five years with the only exception of Pragati Insurance Ltd. The average of dividend per share of the latest five years of Insurance sector has increased from Tk.0.73 to Tk.1.26 in comparison with that of the first five years. This gradual increase in dividend per share of the Insurance sector may positively affect the shareholders' required rate of return and potential investors may be interested to invest in the sector. Eastern Insurance Co. Ltd. paid the highest average dividend in the latest five years, which is Tk.2.00. Continental Insurance Ltd. paid the lowest amount of average dividend in the latest five years, which is Tk. 0.70. Green Delta Insurance Co. paid the highest average dividend in the first five years, which is Tk.1.60 and Phoenix Insurance Company Ltd. and Continental Insurance Ltd paid the lowest amount of average dividend in the first five years, which is Tk.0.30 for each of the companies.

### 5.2.9 Sector-wise Dividend per Share

Table 5.17: Sector Wise Average Dividend per Share

		Sect	or Wise A	verage Di	vidend Per	Share					
Sector	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	AVG
Banks	1.03	1.49	1.56	1.58	1.40	1.13	0.98	0.67	0.54	0.38	1.08
Financial	2.25	2.14	2.21	1.86	2.07	1.29	0.61	0.82	0.82	1.81	1.59
Engineering	2.50	2.27	2.46	4.11	2.74	2.99	1.23	10.09	2.65	1.86	3.29
Food & Allied	14.44	14.30	13.44	13.04	14.44	11.78	10.08	10.20	7.44	6.22	11.54
Fuel & Power	8.25	7.88	6.13	5.50	5.00	3.25	2.63	3.00	3.25	2.88	4.78
Textile	1.19	1.21	1.84	1.53	1.75	1.56	1.45	1.54	1.28	1.41	1.48
Pharmaceuticals & Chemicals	23.50	23.00	21.41	17.69	13.21	7.33	7.93	9.29	16.25	7.21	14.68
Insurance	1.28	1.26	1.27	1.20	1.29	1.12	0.77	0.82	0.50	0.45	1.00
AVG	6.81	6.69	6.29	5.81	5.24	3.81	3.21	4.55	4.09	2.78	4.93



Graph 5.25: Sector-wise Average Dividend per Share

Table 5.17 and Graph 5.25 show the comparison of average dividend per share of the selected sectors. It is found that Pharmaceuticals & Chemicals sector is the highest dividend paying sector followed by the Food & Allied Product sector and then Fuel & Power sector, whereas Insurance sector and Banking sector are the two very low dividend paying sectors. All the sectors except Engineering sector paid higher dividend in the latest five years in comparison with the first five years.

### **5.3 DIVIDEND PAYOUT RATIO (%)**

Dividend payout ratio indicates the percentage of earnings distributed to shareholders in the form of cash dividend. It is calculated by dividing the firm's cash dividend per share by its earnings per share (Gitman and Zutter, 2015).<sup>261</sup> It can be calculated as:

Dividend Payout Ratio = 
$$\frac{Dividend\ per\ Share}{Earinings\ per\ Share} \times 100$$

Dividend payout ratio is a common indicator to measure a company's dividend policy. This ratio does not always indicate the proportion of current earnings paid out only as dividend since dividend is allowed to be paid out of past accumulated earnings also. A dividend payout ratio of more than 100 percent definitely indicates the payment of dividend out of past accumulated earnings.

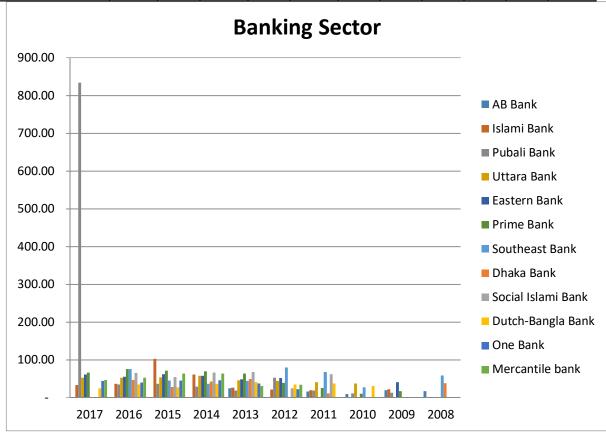
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<sup>&</sup>lt;sup>261</sup> Gitman, L., & Zutter, C., (2015). Principles of managerial finance (14th ed. p.630). New York: Pearson Education Limited.

# 5.3.1 Banking Sector

Table 5.18: Dividend Payout Ratio (%) – Banking Sector

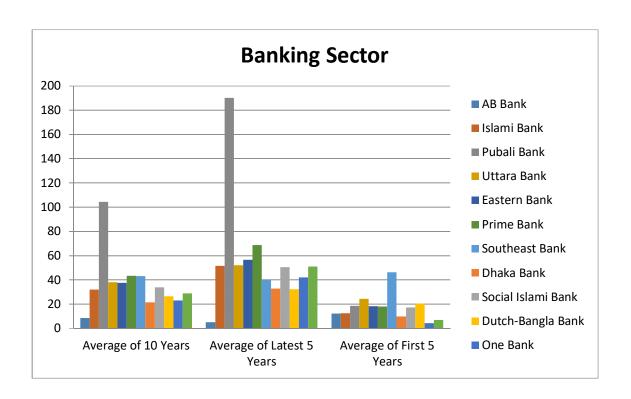
			Di	vidend P	ayout Rati	io %					
Company	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	AVG
AB Bank	-	-	-	-	24.39	-	15.87	9.24	18.76	16.72	8.50
Islami Bank	32.68	35.97	102.04	60.98	25.48	20.83	18.92	-	21.78	-	31.87
Pubali Bank	833.33	34.01	35.93	28.25	18.12	52.08	18.52	10.37	11.88	-	104.25
Uttara Bank	52.22	51.81	52.91	56.98	45.45	43.86	39.92	37.04	-	-	38.02
Eastern Bank	60.79	54.35	61.54	57.14	48.19	51.15	-	-	40.16	-	37.33
Prime Bank	65.42	75.12	71.09	68.81	63.13	38.17	25.19	9.78	16.37	-	43.31
Southeast Bank	-	75.19	44.78	35.89	43.48	79.37	67.57	26.53	-	57.87	43.07
Dhaka Bank	-	46.51	27.27	41.67	48.71	-	10.42	-	-	38.05	21.26
Social Islami Bank	-	64.52	54.15	65.69	67.42	24.04	61.05	-	-	-	33.69
Dutch-Bangla Bank	24.43	34.05	26.49	36.26	40.00	34.57	37.14	29.97	-	-	26.29
One Bank	43.73	39.27	44.33	45.13	36.89	21.28	-	-	-	-	23.06
Mercantile bank	45.82	52.26	63.49	63.29	29.96	33.82	-	-	-	-	28.86
AVERAGE	96.54	46.92	48.67	46.67	40.93	33.26	24.55	10.24	9.08	9.39	36.63



Graph 5.26: Dividend Payout Ratio (%) – Banking Sector

Table 5.19: Average of Dividend Payout Ratio (%) – Banking Sector

Company	Average of 10 Years	Average of Latest 5 Years	Average of First 5 Years
AB Bank	8.50	4.88	12.12
Islami Bank	31.87	51.43	12.31
Pubali Bank	104.25	189.93	18.57
Uttara Bank	38.02	51.88	24.16
Eastern Bank	37.33	56.40	18.26
Prime Bank	43.31	68.71	17.90
Southeast Bank	43.07	39.87	46.27
Dhaka Bank	21.26	32.83	9.69
Social Islami Bank	33.69	50.36	17.02
Dutch-Bangla Bank	26.29	32.25	20.34
One Bank	23.06	41.87	4.26
Mercantile bank	28.86	50.97	6.76
AVERAGE	36.63	55.95	17.30



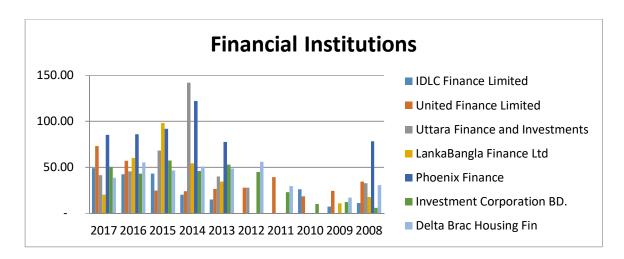
Graph 5.27: Average of Dividend Payout Ratio (%) – Banking Sector

From the table and graph of dividend payout ratio of Banking sector, it is observed that the average dividend payout ratio of Banking sector is 36.63%, which indicates that companies of Banking sector are paying less portion of their earnings to the shareholders and 63.37% of earnings is kept as retained earnings. From the table 5.18 of DPR of Banking sector, it can be observed that out of 12 companies the highest Dividend Payout Ratio is 104.25% of Pubali Bank. This indicates that this bank is paying more than 100% of its earnings as dividend to shareholders'. This implies that the bank is giving important to dividend than retained earnings. On the other hand, the dividend payout ratio of AB Bank is very poor (8.50%) which shows that AB Bank is paying less out of its earnings as dividend. During the 2017 banking companies have distributed the highest amount of their earnings as dividend to shareholders (i.e.96.54%), whereas during the year 2009 banking companies have distributed the lowest amount of their earnings to shareholders in form of dividend (9.08%). When we look at the average DPR table of banking sector, we find that the DPR of 10 out of 12 companies have increased in the latest five years in comparison with the first five years. The DPR of only AB Bank and South East Bank has decreased in the latest five years. This indicates that 10 out of 12 banks paid more out of their profits to the shareholders as dividend in the latest five years. It can also be observed that no one banking company follows Constant Dividend Payout Ratio Policy.

### **5.3.2 Financial Institutions Sector**

Table 5.20: Dividend Payout Ratio (%) – Financial Institutions Sector

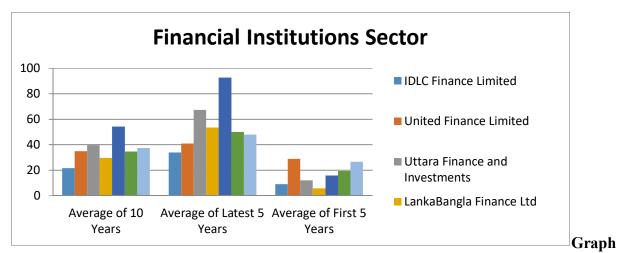
			Divide	nd Payout	Ratio %						
Company	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	AVG
IDLC Finance Limited	48.94	42.37	43.03	20.20	15.02	-	-	26.10	7.30	11.07	21.40
United Finance Limited	72.99	56.82	24.75	23.81	26.32	27.78	39.06	18.34	24.42	34.50	34.88
Uttara Finance and Investments	41.38	42.00	68.03	141.84	40.05	27.93	-	-	-	32.54	39.71
LankaBangla Finance Ltd	20.27	60.00	98.04	54.35	34.40	-	-	-	10.71	17.58	29.54
Phoenix Finance	85.11	85.84	91.74	121.95	77.52	-	-	-	-	78.27	54.04
Investment Corporation BD.	50.25	43.17	57.25	45.69	52.65	44.83	22.80	9.93	12.27	6.03	34.49
Delta Brac Housing Finance	38.51	55.00	46.51	50.85	48.54	55.93	29.41	-	16.97	30.65	37.27
AVERAGE	51.06	55.55	61.34	65.53	42.07	22.35	13.04	7.77	10.24	30.09	35.90



Graph 5.28: Dividend Payout Ratio (%) – Financial Institutions Sector

Table 5.21: Average of Dividend Payout Ratio (%) – Financial Institutions Sector

Company	Average of 10 Years	Average of Latest 5 Years	Average of First 5 Years
IDLC Finance Limited	21.40	33.91	8.89
United Finance Limited	34.88	40.94	28.82
Uttara Finance and Investments	39.71	67.32	12.09
LankaBangla Finance Ltd	29.54	53.41	5.66
Phoenix Finance	54.04	92.43	15.65
Investment Corporation BD.	34.49	49.80	19.17
Delta Brac Housing Finance	37.27	47.95	26.59
AVERAGE	35.90	55.11	16.70



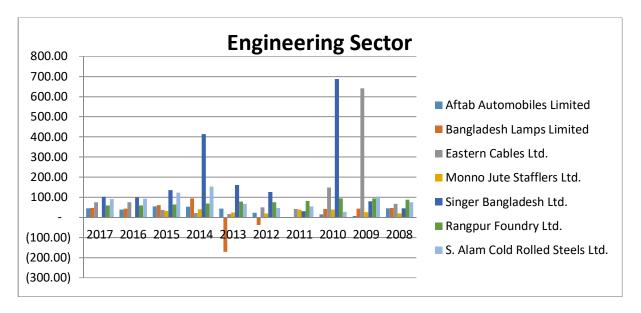
5.29: Average of Dividend Payout Ratio (%) – Financial Institutions Sector

From the table and graph of dividend payout ratio of Financial Institutions sector, it is observed that the average dividend payout ratio of Financial Institutions sector is 35.90%, which indicates that companies of Financial Institutions sector are paying less portion of their earnings to the shareholders and 64.10% of earnings is kept as retained earnings. The table and graph related to dividend payout ratio of Financial Institutions sector indicate that Phoenix Finance is distributing the highest amount of earnings among its shareholders and is followed by Uttara Finance and Investments. The average DPR of Phoenix Finance is 54.04% and that of Uttara Finance and Investments is 39.71%, whereas the lowest average DPR is 21.40% for IDLC Finance Limited. This shows that the company has retained larger portion of profits and distributed less portion to the shareholders as dividend. During the year 2014 Financial Institutions sector companies have distributed the highest amount of earnings in form of dividend (i.e. 65.53%), whereas during the year 2010 Financial Institutions have distributed the lowest amount of earnings in the form of dividend (7.77%). When we look at the average DPR table and related graph thereof, it is clear that all companies of Financial Institution sector have paid much more dividend out of their profits in the latest five years compared to first five years. This implies that all companies have substantially increased their DPR with the passage of time. It can also be observed that no one company of the Financial Institutions sector follows Constant Dividend Payout Ratio Policy.

# **5.3.3 Engineering Sector**

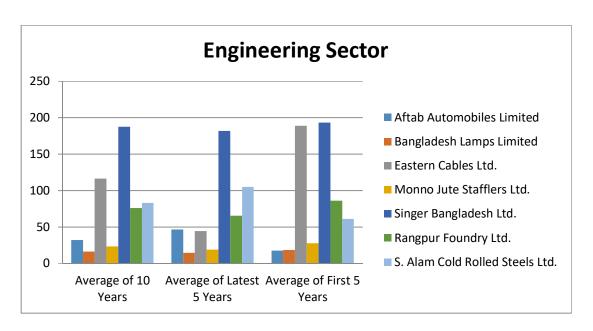
Table 5.22: Dividend Payout Ratio (%) – Engineering Sector

Dividend Payout Ratio %											
Company	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	AVG
Aftab Automobiles Limited	44.78	38.83	53.57	52.46	42.39	22.22	0.00	14.86	6.63	43.86	31.96
Bangladesh Lamps Limited	46.30	42.43	60.79	94.34	(172.41)	(37.66)	0.00	40.84	43.12	45.60	16.33
Eastern Cables Ltd.	74.07	74.07	35.71	20.20	16.39	49.02	40.49	147.06	641.03	66.27	116.43
Monno Jute Stafflers Ltd.	-	-	31.15	39.53	24.10	18.83	37.31	38.36	25.76	18.40	23.34
Singer Bangladesh Ltd.	102.15	98.31	135.14	413.14	160.51	125.13	29.47	687.29	78.70	43.98	187.38
Rangpur Foundry Ltd.	58.97	58.66	63.52	68.75	77.46	73.94	80.77	94.17	93.61	86.96	75.68
S. Alam Cold Rolled Steels Ltd.	90.09	92.59	121.95	153.06	67.01	45.32	54.55	26.46	102.95	74.37	82.83
AVERAGE	59.48	57.84	71.69	120.21	30.78	42.40	34.65	149.86	141.68	54.20	76.28



Graph 5.30: Dividend Payout Ratio (%) – Engineering Sector Table 5.23: Average of Dividend Payout Ratio (%) – Engineering Sector

Company	Average of 10 Years	Average of Latest 5 Years	Average of First 5 Years
Aftab Automobiles Limited	31.96	46.41	17.51
Bangladesh Lamps Limited	16.33	14.29	18.38
Eastern Cables Ltd.	116.43	44.09	188.77
Monno Jute Stafflers Ltd.	23.34	18.95	27.73
Singer Bangladesh Ltd.	187.38	181.85	192.91
Rangpur Foundry Ltd.	75.68	65.47	85.89
S. Alam Cold Rolled Steels Ltd.	82.83	104.94	60.73
AVERAGE	76.28	68.00	84.56



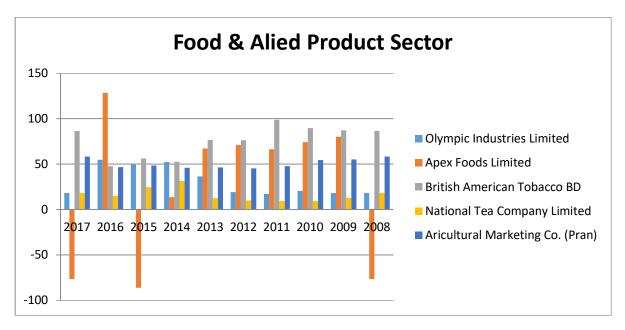
Graph 5.31: Average of Dividend Payout Ratio (%) – Engineering Sector

From the table and graph of dividend payout ratio of Engineering sector, it is observed that the average dividend payout ratio of Engineering sector is 76.28%, which indicates that companies of Engineering sector are paying major portion of their earnings to the shareholders and only 23.72% of earnings is kept as retained earnings. It is also observed that Singer Bangladesh Ltd. and Eastern Cables Limited have paid more than 100% of their earnings as dividend. Singer Bangladesh Ltd. paid 187.38% and Eastern Cables Ltd. 116.43% of earnings to their shareholders as dividend. This shows that these companies are giving importance to dividend than retained earnings. On the other hand Bangladesh Lamps Limited has distributed the lowest amount of earnings in the form of dividend, which is 16.33%. The average dividend payout ratio of S. Alam Cold Rolled Steels Ltd. and Rangpur Foundry Ltd. are very good as they are paying major portion of their earnings to the shareholders in the form of dividend. DPR of these two companies are 82.83% and 75.68% respectively. On the other hand, DPR of Monno Jute Stafflers Ltd. and Aftab Automobiles Limited are 23.34% and 31.96%, which indicates that these two companies are paying less portion of earnings to the shareholders in form of dividend and major portion of the earnings are kept as retained earnings. The average DPR table clearly indicates that only Aftab Automobiles Limited and S. Alam Cold Rolled Steels Limited have improved their average DPR in the latest five years. On the other hand, the average DPR of Bangladesh Lamps Limited, Eastern Cables Ltd., Monno Jute Stafflers Ltd., Singer Bangladesh Ltd. and Rangpur Foundry Ltd. have declined in the latest five years compared to the first five years. It can also be observed that no one Engineering company follows Constant Dividend Payout Ratio Policy.

### 5.3.4 Food & Allied Product Sector

Table 5.24: Dividend Payout Ratio (%) - Food & Allied Product Sector

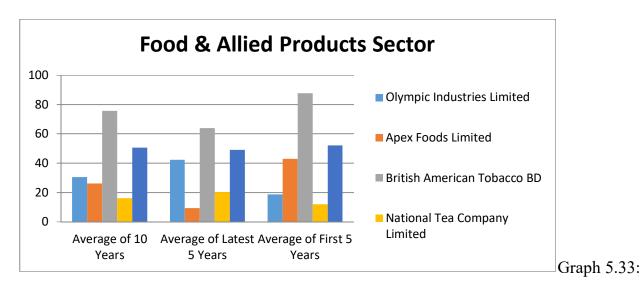
Dividend Payout Ratio %											
Company	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	AVG
Olympic Industries Limited	18.02	54.74	49.26	52.17	36.50	19.08	16.84	20.41	18.22	18.02	30.33
Apex Foods Limited	(76.63)	128.21	(86.21)	13.44	66.89	70.87	66.42	74.07	79.95	(76.63)	26.04
British American Tobacco BD	86.30	47.48	56.18	52.53	76.41	76.12	98.80	89.62	87.01	86.30	75.67
National Tea Company Limited	18.02	14.96	24.51	31.35	12.26	10.04	9.40	9.40	12.76	18.02	16.07
Aricultural Marketing Co. (Pran)	58.05	46.58	48.34	46.04	46.18	45.26	47.47	54.48	55.06	58.05	50.55
AVERAGE	20.75	58.39	18.42	39.11	47.65	44.27	47.79	49.60	50.60	20.75	39.73



Graph 5.32: Dividend Payout Ratio (%) – Food & Allied Product Sector

Table 5.25: Average of Dividend Payout Ratio (%) – Food & Allied Products Sector

$\mathcal{E}$	•	· /	
Company	Average of 10 Years	Average of Latest 5 Years	Average of First 5 Years
Olympic Industries Limited	30.33	42.14	18.51
Apex Foods Limited	26.04	9.14	42.94
British American Tobacco BD	75.68	63.78	87.57
National Tea Company Limited	16.07	20.22	11.92
Aricultural Marketing Co. (Pran)	50.55	49.04	52.06
AVERAGE	39.73	36.86	42.60



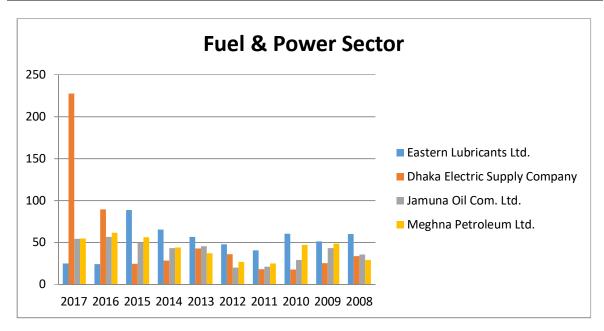
Average of Dividend Payout Ratio (%) – Food & Allied Products Sector

From the table and graph of dividend payout ratio of Food & Allied Product sector, it is observed that the average dividend payout ratio of Food & Allied Products sector is 39.73%, which indicates that companies of Food & Allied Products sector are paying less portion of their earnings to the shareholders and 60.27% of earnings is kept as retained earnings. It is also observed that DPR of British American Tobacco BD and Agricultural Marketing Co. (Pran) are 75.67% and 50.55%, which indicates that major portion of earnings of these two companies are distributed to the shareholders in form of dividend. On the other hand, National Tea Company Limited has distributed the lowest amount of earnings in the form of dividend, which is only 16.07%. The average dividend payout ratio of Olympic Industries Limited and Apex Foods Limited are 30.33% and 26.04% respectively, which indicates that these two companies distributed less portion of earnings to the shareholders retaining major portion in the company. The average DPR table clearly indicates that only Olympic Industries Limited and National Tea Limited have improved their average DPR in the latest five years. On the other hand, the average DPR of Apex Foods Limited, British American Tobacco BD and Agricultural Marketing Co. (Pran) have declined in the latest five years compared to the first five years. It is also evident that no one company under Foods & Allied Product sector follows Constant Dividend Payout Ratio Policy.

#### 5.3.5 Fuel & Power Sector

Table 5.26: Dividend Payout Ratio (%) – Fuel & Power Sector

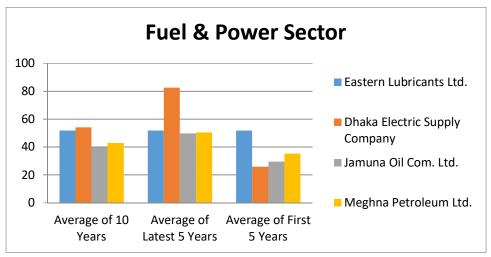
	Dividend Payout Ratio %													
Company	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	AVG			
Eastern Lubricants Ltd.	24.61	23.98	88.50	65.22	56.29	47.47	40.49	60.00	50.92	59.81	51.73			
Dhaka Electric Supply Company	227.27	89.29	24.33	28.25	42.74	35.71	17.61	17.46	24.91	33.34	54.09			
Jamuna Oil Com. Ltd.	54.16	56.37	49.02	42.90	45.41	19.75	20.76	28.71	42.92	35.21	39.52			
Meghna Petroleum Ltd.	54.24	61.40	55.85	43.56	36.94	26.53	24.73	46.97	48.48	28.84	42.76			
AVEREGE	90.07	57.76	54.42	44.98	45.34	32.37	25.90	38.29	41.81	39.30	47.02			



Graph 5.34: Dividend Payout Ratio (%) – Fuel & Power Sector

Table 5.27: Average of Dividend Payout Ratio (%) – Fuel & Power Sector

Commonwe	Average of	Average of Latest	Average of First
Company	10 Years	5 Years	5 Years
Eastern Lubricants Ltd.	51.73	51.72	51.74
Dhaka Electric Supply Company	54.09	82.38	25.81
Jamuna Oil Com. Ltd.	39.52	49.57	29.47
Meghna Petroleum Ltd.	42.76	50.40	35.11
AVEREGE	47.02	58.51	35.53



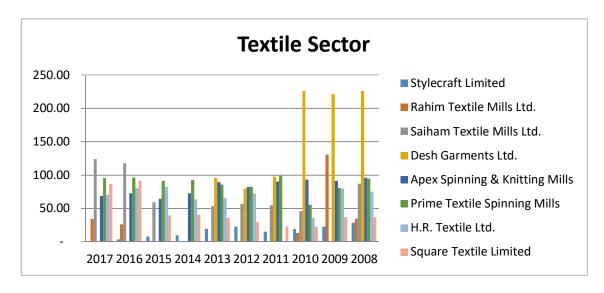
**Graph 5.35:** Average of Dividend Payout Ratio (%) – Fuel & Power Sector

From the table and graph of dividend payout ratio of Fuel & Power sector, it is observed that the average dividend payout ratio of Fuel & Power sector is 47.02%, which indicates that companies of Fuel & Power sector are paying less portion of their earnings to the shareholders and 52.98% of earnings is kept as retained earnings. The table and graph related to dividend payout ratio of Fuel & Power sector indicate that Dhaka Electric Supply Company is distributing the highest amount of earnings among its shareholders and is followed by Eastern Lubricants Ltd. and then Meghna Petroleum Ltd. The average DPR of Dhaka Electric Supply Company is 54.09% and that of Eastern Lubricants Ltd. is 51.73% and Meghna Petroleum Ltd. is 42.76%. The lowest average DPR is 39.52% for Jamuna Oil Com. Ltd. This indicates that Jamuna Oil Com. Ltd. and Meghna Petroleum Ltd. have retained larger portion of profits and distributed less portion to the shareholders as dividend. During the year 2017 Fuel & Power sector companies have distributed the highest amount of earnings in form of dividend (i.e. 90.07%), whereas during the year 2011 Fuel & Power companies have distributed the lowest amount of earnings in the form of dividend (25.90%). When we look at the average DPR table and related graph thereof, it is clear that companies of Fuel & Power sector have paid more dividend out of their profits in the latest five years compared to first five years. It can also be observed that no one company of the Fuel & Power sector follows Constant Dividend Payout Ratio Policy.

#### **5.3.6 Textile Sector**

Table 5.28: Dividend Payout Ratio (%) – Textile Sector

	Dividend Payout Ratio %													
Company	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	AVG			
Stylecraft Limited	-	3.43	7.86	9.59	19.11	22.74	14.69	18.53	22.45	28.05	14.65			
Rahim Textile Mills Ltd.	33.90	26.09	-	-	-	-	-	13.09	130.43	34.70	23.82			
Saiham Textile Mills Ltd.	123.97	117.65	58.82	-	53.38	56.60	54.55	45.32	-	86.81	59.71			
Desh Garments Ltd.	-	-	-	-	95.24	79.55	97.22	225.81	221.24	225.99	94.50			
Apex Spinning & Knitting Mills	68.73	72.46	64.33	72.46	89.29	81.82	90.00	93.17	91.19	96.03	81.95			
Prime Textile Spinning Mills	95.24	96.15	90.91	92.59	85.47	82.64	99.01	55.25	80.53	94.43	87.22			
H.R. Textile Ltd.	69.93	80.00	81.97	63.13	65.22	72.12	-	35.46	79.74	74.96	62.25			
Square Textile Limited	86.21	91.32	39.18	40.40	35.34	29.17	22.66	21.86	36.78	36.66	43.96			
AVERAGE	59.75	60.89	42.88	34.77	55.38	53.08	47.27	63.56	82.80	84.70	58.51			

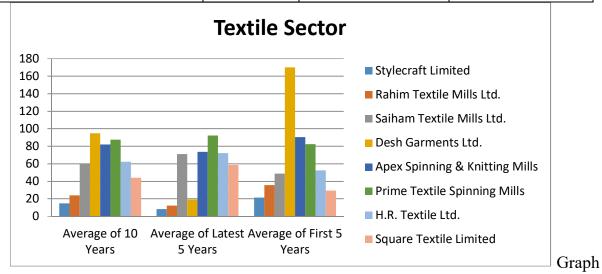


Graph 5.36: Dividend Payout Ratio (%) – Textile Sector

Table 5.29: Average of Dividend Payout Ratio (%) –Textile Sector

Company	Average of 10 Years	Average of Latest 5 Years	Average of First 5 Years
Stylecraft Limited	14.65	8.00	21.29
Rahim Textile Mills Ltd.	23.82	12.00	35.65
Saiham Textile Mills Ltd.	59.71	70.76	48.65
Desh Garments Ltd.	94.50	19.05	169.96
Apex Spinning & Knitting Mills	81.95	73.45	90.44
Prime Textile Spinning Mills	87.22	92.07	82.37

H.R. Textile Ltd.	62.25	72.05	52.46
Square Textile Limited	43.96	58.49	29.43
AVERAGE	58.51	50.73	66.28



5.37: Average of Dividend Payout Ratio (%) –Textile Sector

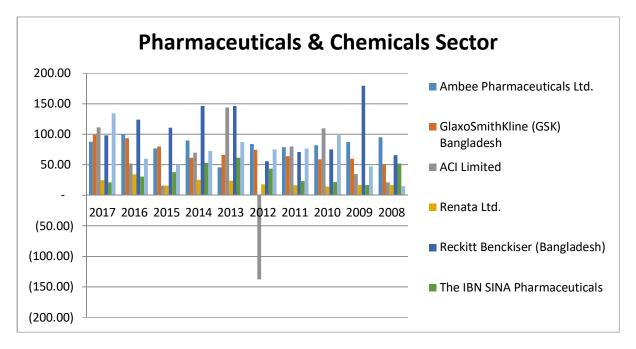
From the table and graph of dividend payout ratio of Textile sector, it is observed that the average dividend payout ratio of Textile sector is 58.51%, which indicates that companies of Textile sector are paying major portion of their earnings to the shareholders and 41.49% of earnings is kept as retained earnings. It is also observed that Desh Garments Ltd. paid the highest average dividend payout on earnings, which is 94.50% and is followed by Prime Textile Spinning Mills and Apex Spinning & Knitting Mills which are 87.22% and 81.95%. Desh Garments Ltd. and Saiham Textile Mills Limited paid more than 100% of earnings to the shareholders in three and two consecutive years respectively. This implies that Desh Garments Ltd. and Saiham Textile Mills Limited are giving importance to dividend than retained earnings. On the other hand, Stylecraft Limited distributed the lowest amount of earnings in the form of dividend, which is only 14.65%. The average dividend payout ratio of H.R. Textile Ltd. and Saiham Textile Mills Ltd. are very good as they are paying major portion of their earnings to the shareholders in the form of dividend. Dividend payout ratio of these two companies are 62.25% and 59.71% respectively. On the other hand, DPR of Rahim Textile Mills Ltd. and Square Textile Limited are 23.82% and 43.96% respectively, which indicates that these two companies are paying less portion of earnings to the shareholders in form of dividend and major portion of the earnings are kept as retained earnings. The average DPR table clearly indicates that Saiham Textile Mills Ltd., Prime Textile Spinning Mills, H.R. Textile Ltd. and Square Textile Limited have improved their average DPR in the latest five years. On the other hand, the average DPR of Stylecraft Limited, Rahim Textile

Mills Ltd., Desh Garments Ltd. and Apex Spinning & Knitting Mills have declined in the latest five years compared to the first five years. Like other sectors, no one Textile company follows Constant Dividend Payout Ratio Policy.

#### 5.3.7 Pharmaceuticals & Chemicals Sector

Table 5.30: Dividend Payout Ratio (%) – Pharmaceuticals & Chemicals Sector

	Dividend Payout Ratio %													
Company	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	AVG			
Ambee Pharmaceuticals Ltd.	87.21	99.34	76.25	89.46	45.59	83.76	78.74	81.52	86.96	94.64	82.35			
GlaxoSmithKline (GSK) Bangladesh	98.99	93.44	79.72	61.20	66.15	74.07	64.05	58.74	59.52	50.55	70.64			
ACI Limited	111.00	52.04	15.45	69.44	143.58	(137.93)	79.52	109.39	34.27	20.80	49.76			
Renata Ltd.	24.63	34.00	15.62	25.10	23.69	17.87	15.93	13.81	16.43	16.48	20.36			
Reckitt Benckiser (Bangladesh)	97.98	123.68	110.68	146.39	145.88	55.23	70.50	74.88	179.00	65.62	106.98			
The IBN SINA Pharmaceuticals	20.72	30.38	37.69	52.91	61.27	43.60	22.88	21.55	16.45	51.99	35.94			
ACI Formulations Ltd.	134.10	59.83	49.72	72.46	87.11	75.08	76.69	98.36	47.17	14.75	71.53			
AVERAGE	82.09	70.39	55.02	73.85	81.90	30.24	58.33	65.46	62.83	44.97	62.51			

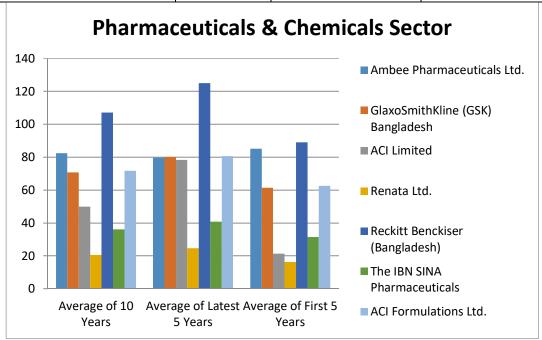


Graph 5.38: Dividend Payout Ratio (%) – Pharmaceuticals & Chemicals Sector

Table 5.31: Average of Dividend Payout Ratio (%) – Pharmaceuticals & Chemicals Sector

Company	Average of 10 Years	Average of Latest 5 Years	Average of First 5 Years		
Ambee Pharmaceuticals Ltd.	82.35	79.57	85.12		
GlaxoSmithKline (GSK) Bangladesh	70.64	79.90	61.39		

ACI Limited	49.76	78.30	21.21
Renata Ltd.	20.36	24.61	16.10
Reckitt Benckiser (Bangladesh)	106.98	124.92	89.04
The IBN SINA Pharmaceuticals	35.94	40.59	31.30
ACI Formulations Ltd.	71.53	80.64	62.41
AVERAGE	62.51	72.65	52.37



Graph 5.39: Average of Dividend Payout Ratio (%) – Pharmaceuticals & Chemicals Sector

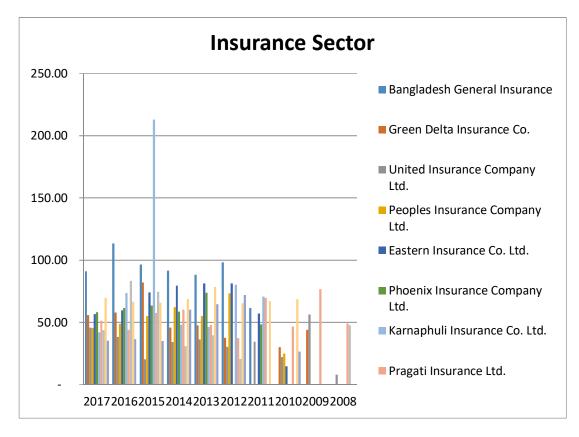
From the table and graph of dividend payout ratio of Pharmaceuticals & Chemicals sector, it is observed that the average dividend payout ratio of the sector is 62.51%, which indicates that companies of Pharmaceuticals & Chemicals sector are paying major portion of their earnings to the shareholders and only 37.49% of earnings is kept as retained earnings. It is also observed that Reckitt Benckiser (Bangladesh) paid on an average more than 100% of their earnings as dividend. DPR of Reckitt Benckiser (Bangladesh) is 106.98%. This shows that Reckitt Benckiser (Bangladesh) is giving importance to dividend than retained earnings. On the other hand, Renata Ltd. distributed the lowest amount of earnings in the form of dividend, which is only 20.36%. The average dividend payout ratio of Ambee Pharmaceuticals Ltd., ACI Formulations Ltd. and GlaxoSmithKline (GSK) Bangladesh are very good as they are paying major portion of their earnings to the shareholders in the form of dividend. Dividend Payout Ratio of these three companies are 82.35%, 71.53% and 70.64% respectively. On the other hand, DPR of The IBN SINA Pharmaceuticals and ACI Limited are paying 35.94% and

49.76%, which indicates that these two companies are paying less portion of earnings to the shareholders in form of dividend and major portion of the earnings are kept as retained earnings. The average DPR table clearly indicates that every company except Ambee Pharmaceuticals Ltd. has improved average DPR in the latest five years in comparison with the first five years. It can also be observed that no one Pharmaceuticals & Chemicals company follows Constant Dividend Payout Ratio Policy.

#### **5.3.8 Insurance Sector**

Table 5.32: Dividend Payout Ratio (%) – Insurance Sector

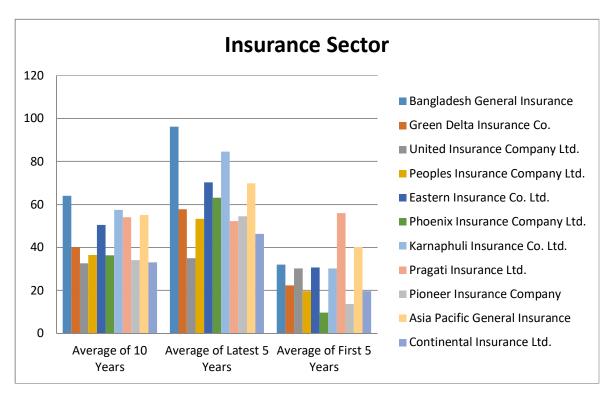
	Dividend Payout Ratio %												
Company	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	AVG		
Bangladesh General Insurance	90.91	113.40	96.49	91.60	88.24	98.16	61.35	-	-	-	64.01		
Green Delta Insurance Co.	55.71	57.80	81.97	45.73	47.62	37.50	-	30.03	43.86	-	40.02		
United Insurance Company Ltd.	45.64	38.33	20.27	34.25	36.10	30.36	34.48	21.98	56.34	7.98	32.57		
Peoples Insurance Company Ltd.	45.45	48.78	54.95	62.20	55.07	73.17	-	24.88	-	-	36.45		
Eastern Insurance Co. Ltd.	56.66	59.52	74.07	79.37	81.30	81.08	57.14	14.71	-	-	50.39		
Phoenix Insurance Company Ltd.	57.97	61.48	63.38	58.48	73.80	-	48.23	-	-	-	36.33		
Karnaphuli Insurance Co. Ltd.	41.96	73.53	212.77	47.95	46.30	80.13	70.75	-	-	-	57.34		
Pragati Insurance Ltd.	51.38	44.05	57.47	60.24	47.71	37.31	69.77	46.58	76.57	49.09	54.02		
Pioneer Insurance Company	43.73	83.33	74.63	30.86	39.68	20.49	-	-	-	47.63	34.04		
Asia Pacific General Insurance	69.77	66.67	65.79	68.49	78.43	65.22	67.11	68.49	-	-	55.00		
Continental Insurance Ltd.	35.21	36.50	34.97	60.24	64.52	71.94	-	26.46	-	-	32.98		
AVERAGE	54.04	62.13	76.07	58.13	59.89	54.12	37.17	21.19	16.07	9.52	44.83		



Graph 5.40: Dividend Payout Ratio (%) – Insurance Sector

Table 5.33: Average of Dividend Payout Ratio (%) – Insurance Sector

Company	Average of 10 Years	Average of Latest 5 Years	Average of First 5 Years
Bangladesh General Insurance	64.01	96.13	31.90
Green Delta Insurance Co.	40.02	57.77	22.28
United Insurance Company Ltd.	32.57	34.92	30.23
Peoples Insurance Company Ltd.	36.45	53.29	19.61
Eastern Insurance Co. Ltd.	50.39	70.18	30.59
Phoenix Insurance Company Ltd.	36.33	63.02	9.65
Karnaphuli Insurance Co. Ltd.	57.34	84.50	30.18
Pragati Insurance Ltd.	54.02	52.17	55.87
Pioneer Insurance Company	34.04	54.45	13.62
Asia Pacific General Insurance	55.00	69.83	40.16
Continental Insurance Ltd.	32.98	46.29	19.68
AVERAGE	44.83	62.05	27.61



Graph 5.41: Average of Dividend Payout Ratio (%) – Insurance Sector

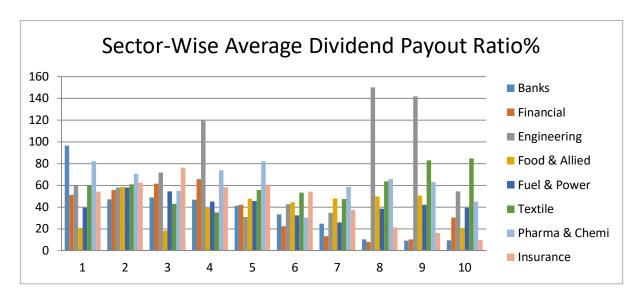
From the table and graph of dividend payout ratio of Insurance sector, it is observed that the average dividend payout ratio of Insurance sector is 44.83%, which indicates that

companies of Insurance sector are paying less portion of their earnings to the shareholders and 55.17% of earnings is kept as retained earnings. From the table of DPR of Insurance sector, it can be observed that out of 11 companies the highest Dividend Payout Ratio is 64.01% of Bangladesh General Insurance. This indicates that this company is paying 64.01% of its earnings as dividend to shareholders' and 35.99% is kept as retained earnings. On the other hand, the average dividend payout ratio of Green Delta Insurance Co., United Insurance Company Ltd., Peoples Insurance Company Ltd, Phoenix Insurance Company Ltd., Pioneer Insurance Company and Continental Insurance Company are 40.02%, 32.57%, 36.45%, 36.33%, 34.04% and 32.98% respectively, which shows that these companies are paying less out of its earnings as dividend. During the 2015 insurance companies have distributed the highest amount of their earnings as dividend to shareholders (i.e. 76.07%), whereas during the year 2008 insurance companies have distributed the lowest amount of their earnings to shareholders in form of dividend (9.52%). When we look at the average DPR table of Insurance sector, we find that every insurance company except Pragati Insurance Ltd. has increased DPR in the latest five years in comparison with the first five years. This indicates that 10 out of 11 companies paid more out of their profits to the shareholders as dividend in the latest five years. It can also be observed that no one insurance company follows Constant Dividend Payout Ratio Policy.

#### 5.3.9 Sector-Wise Dividend Payout Ratio

Table 5.34: Sector –	Wise Average Di	vidend Payout	Ratio (%)

	Sector Wise Average Dividend Payout Ratio%												
Sector	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	AVG		
Banks	96.54	46.92	48.67	46.67	40.93	33.26	24.55	10.24	9.08	9.39	36.63		
Financial	51.06	55.55	61.34	65.53	42.07	22.35	13.04	7.77	10.24	30.09	35.90		
Engineering	59.48	57.84	71.69	120.21	30.78	42.40	34.65	149.86	141.68	54.20	76.28		
Food & Allied	20.75	58.39	18.42	39.11	47.65	44.27	47.79	49.60	50.60	20.75	39.73		
Fuel & Power	90.07	57.76	54.42	44.98	45.34	32.37	25.90	38.29	41.81	39.30	47.02		
Textile	59.75	60.89	42.88	34.77	55.38	53.08	47.27	63.56	82.80	84.70	58.51		
Pharmaceuticals & Chemicals	82.09	70.39	55.02	73.85	81.90	30.24	58.33	65.46	62.83	44.97	62.51		
Insurance	54.04	62.13	76.07	58.13	59.89	54.12	37.17	21.19	16.07	9.52	44.83		
AVG	64.22	58.73	53.56	60.41	50.49	39.01	36.09	50.75	51.89	36.62	50.18		



Graph 5.42: Sector Wise Average Dividend Payout Ratio (%)

From the table and graph of average DPR of various sectors, it is clear that out of eight sectors, Engineering sector, Pharmaceuticals & Chemicals sector and Textile sector distributed higher portion of earnings as dividend to the shareholders. On an average, DPR of Engineering sector, Pharmaceuticals & Chemicals sector and Textile sector companies are 76.28%, 62.51% and 58.51% respectively. It indicates that companies from these three sectors usually pay major portion of their earnings to the shareholders in the form of cash dividend and they keep less portion as retained earnings. On the other hand, remaining five sectors distributed less portion of their earnings to the shareholders and keep major portion of earnings as retained earnings. The lowest DPR is 35.90% for Financial Institutions sector, which is followed by Banking sector (36.63%). The most

important observation is that no one sector follows Constant Dividend Payout Ratio Policy.

#### 5.4 HYPOTHESIS TESTING

For testing hypotheses of the study, Analysis of Variance (ANOVA), Pearson Correlation, multiple as well as simple linear regression have been used.

#### **5.4.1** Analysis of Variance (ANOVA)

One of the specified objectives of the study is to identify the significant difference between dividend per share of intra-sector as well as inter-sector companies. For this purpose, ANOVA technique is used.

#### 1. Dividend per Share of Banking Companies

H<sub>0</sub>: There is no significant difference in Dividend per Share between selected Banking Companies.

H<sub>1</sub>: There is significant difference in Dividend per Share between selected Banking Companies.

#### SUMMARY

Groups	Count	Sum	Average	Variance
AB Bank	10	5.5	0.55	0.525
Islami Bank	10	8.8	0.88	0.364
Pubali Bank	10	6.2	0.62	0.122
Uttara Bank	10	15	1.5	0.667
Eastern Bank	10	14	1.4	0.933
Prime Bank	10	10.05	1.005	0.251
Southeast Bank	10	12.1	1.21	0.463
Dhaka Bank	10	6.7	0.67	0.469
Social Islami Bank	10	8.05	0.805	0.645
Dutch-Bangla Bank	10	29	2.9	2.544
One Bank	10	6.7	0.67	0.404
Mercantile Bank	10	6.9	0.69	0.439

#### **ANOVA**

					<i>P-</i>	
Source of Variation	SS	Df	MS	F	value	F crit
					3E-	
Between Groups	47.1	11	4.282	6.565	08	1.878
Within Groups	70.44	108	0.652			
Total	117.5	119				

From the above table for 11 and 108 degree of freedom it is concluded that

Fcal is 6.565 and Ftab is 1.878.

Thus, Fcal>Ftab and p-value is lower than specified  $\alpha$  of 0.05.

So, null hypothesis is rejected and it is concluded that there is significant difference in Dividend per share between selected Banking Companies.

#### 2. Dividend per Share of Financial Institutions

H<sub>0</sub>: There is no significant difference in Dividend per Share between selected Financial Institutions.

H<sub>1</sub>: There is significant difference in Dividend per Share between selected Financial Institutions.

#### **SUMMARY**

Groups	Count	Sum	Average	Variance
IDLC Finance Limited	10	16	1.6	1.711111
United Finance Limited	10	8.25	0.825	0.209028
Uttara Finance and Investments	10	19	1.9	1.877778
LankaBangla Finance Ltd	10	9.25	0.925	0.472917
Phoenix Finance	10	12.5	1.25	1.180556
ICB	10	27	2.7	1.511111
Delta Brac Housing Finance	10	19.2	1.92	1.086222

#### **ANOVA**

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups Within Groups	25.80236 72.4385	6 63	4.300393 1.149817	3.740066	0.003027	2.246408
Total	98.24086	69				

From the above table for 6 and 63 degree of freedom it can be interpreted that Fcal is 3.740066 and Ftab is 2.246408.

Thus, Fcal>Ftab and p-value is lower than specified  $\alpha$  of 0.05.

So, null hypothesis is rejected and it is concluded that there is significant difference in Dividend per Share between selected Financial Institutions.

# 3. Dividend per Share of Engineering Companies

H<sub>0</sub>: There is no significant difference in Dividend per Share between selected Engineering Companies.

H<sub>1</sub>: There is significant difference in Dividend per Share between selected Engineering Companies.

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Groups	Count	Sum	Average	Variance
Aftab Automobiles Limited	10	12.4	1.24	0.329333
Bangladesh Lamps Limited	10	23.5	2.35	1.169444
Eastern Cables Ltd.	10	9.7	0.97	0.031222
Monno Jute Stafflers Ltd.	10	8.5	0.85	0.225
Singer Bangladesh Ltd.	10	140.5	14.05	283.6361
Rangpur Foundry Ltd.	10	22.65	2.265	0.208917
S. Alam Cold Rolled Steels Ltd.	10	13	1.3	0.131111

#### **ANOVA**

Source of Variation	SS	Df	MS	F	P-value	F crit
Between		_				
Groups	1372.104	6	228.684	5.602428	0.000105	2.246408
Within Groups	2571.58	63	40.81873			
Total	3943.684	69				

From the above table for 6 and 63 degree of freedom it is concluded that Fcal is 5.602428 and Ftab is 2.246408.

Thus, Fcal>Ftab and p-value is lower than specified  $\alpha$  of 0.05.

So, null hypothesis is rejected and it is concluded that there is significant difference in Dividend per Share between selected Engineering Companies.

# 4. Dividend per Share of Food & Allied Product Companies

H<sub>0</sub>: There is no significant difference in Dividend per Share between selected Food & Allied Product Companies.

H<sub>1</sub>: There is significant difference in Dividend per Share between selected Food & Allied Product Companies.

#### **SUMMARY**

Groups	Count	Sum	Average	Variance
Olympic Industries Limited	10	23.3	2.33	2.555667
Apex Foods Limited	10	17.4	1.74	0.116
British American Tobacco BD	10	481	48.1	171.8778
National Tea Company Limited	10	24	2.4	0.22
Agricultural Marketing Co. (Pran)	10	31.2	3.12	0.010667

#### **ANOVA**

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	16719.34	4	4179.834	119.5741	2.29E-23	2.578739
Within Groups	1573.021	45	34.95602			
Total	18292.36	49				

From the above table for 4 and 45 degree of freedom it is interpreted that Fcal is 119.5741 and Ftab is 2.578739.

Thus, Fcal>Ftab and p-value is lower than specified  $\alpha$  of 0.05.

So, null hypothesis is rejected and it is concluded that there is significant difference in Dividend per Share between selected Food & Allied Product Companies.

# 5. Dividend per Share of Fuel & Power Companies

H<sub>0</sub>: There is no significant difference in Dividend per Share between selected Fuel & Power Companies.

H<sub>1</sub>: There is significant difference in Dividend per Share between selected Fuel & Power Companies.

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S OTHER INC.				
Groups	Count	Sum	Average	Variance
Eastern Lubricants Ltd.	10	43	4.3	9.066667
Dhaka Electric Supply Company	10	13	1.3	0.455556
Jamuna Oil Com. Ltd.	10	67.5	6.75	10.84722
Meghna Petroleum Ltd.	10	67.5	6.75	11.125

#### **ANOVA**

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	201.025	3	67.00833	8.510496	0.00021	2.866266
Within Groups	283.45	36	7.873611			
Total	484.475	39				

From the above table for 3 and 36 degree of freedom it is interpreted that Fcal is 8.510496 and Ftab is 2.866266.

Thus, Fcal>Ftab and p-value is lower than specified  $\alpha$  of 0.05.

So, null hypothesis is rejected and it is concluded that there is significant difference in Dividend per Share between selected Fuel & Power Companies.

# 6. Dividend per Share of Textile Companies

H<sub>0</sub>: There is no significant difference in Dividend per Share between selected Textile Companies.

H<sub>1</sub>: There is significant difference in Dividend per Share between selected Textile Companies.

**SUMMARY** 

BOWINI IKT				
Groups	Count	Sum	Average	Variance
Stylecraft Limited	10	40	4	5.167
Rahim Textile Mills Ltd.	10	7.25	0.725	0.728
Saiham Textile Mills Ltd.	10	9.9	0.99	0.37
Desh Garments Ltd.	10	4	0.4	0.142
Apex Spinning & Knitting Mills	10	18.3	1.83	0.065
Prime Textile Spinning Mills	10	10.1	1.01	0.001
H.R. Textile Ltd.	10	9.6	0.96	0.202
Square Textile Limited	10	18.9	1.89	0.077

ANOVA

					P <b>-</b>	$\overline{F}$
Source of Variation	SS	df	MS	F	value	crit
					4E-	
Between Groups	91.09	7	13.01	15.42	12	2.14
Within Groups	60.76	72	0.844			
Total	151.8	79				

From the above table for 7 and 72 degree of freedom it is concluded that Fcal is 15.42 and Ftab is 2.14.

Thus, Fcal>Ftab and p-value is lower than specified  $\alpha$  of 0.05.

So, null hypothesis is rejected and it is concluded that there is significant difference in Dividend per Share between selected Textile Companies.

# 7. Dividend per Share of Pharmaceuticals & Chemicals Companies

H<sub>0</sub>: There is no significant difference in Dividend per share between selected Pharmaceuticals & Chemicals Companies.

H<sub>1</sub>: There is significant difference in Dividend per Share between selected Pharmaceuticals & Chemicals Companies.

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Groups	Count	Sum	Average	Variance
Ambee Pharmaceuticals Ltd.	10	28.2	2.82	0.246222
GlaxoSmithKline (GSK) Bangladesh	10	304	30.4	346.0444
ACI Limited	10	101.5	10.15	2.336111
Renata Ltd.	10	75.5	7.55	5.636111
Reckitt Benckiser (Bangladesh)	10	469.5	46.95	692.5806
The IBN SINA Pharmaceuticals	10	21.5	2.15	1.044444
ACI Formulations Ltd.	10	27.5	2.75	0.569444

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Source of					<i>P</i> -	
Variation	SS	Df	MS	F	value	F crit
Between					6.07E-	
Groups	17998.14	6	2999.691	20.02736	13	2.246408
Within Groups	9436.116	63	149.7796			
Total	27434.26	69				

From the above table for 6 and 63 degree of freedom it is concluded that Fcal is 20.02736 and Ftab is 2.246408.

Thus, Fcal>Ftab and p-value is lower than specified  $\alpha$  of 0.05.

So, null hypothesis is rejected and it is concluded that there is significant difference in Dividend per Share between selected Pharmaceuticals & Chemicals Companies.

# 8. Dividend per Share of Insurance Companies

H<sub>0</sub>: There is no significant difference in Dividend per Share between selected Insurance Companies.

H<sub>1</sub>: There is significant difference in Dividend per Share between selected Insurance Companies.

#### **SUMMARY**

Groups	Count	Sum	Average	Variance
Bangladesh General Insurance	10	8.2	0.82	0.348444
Green Delta Insurance Co.	10	17.5	1.75	1.402778
United Insurance Company Ltd.	10	9.55	0.955	0.024694
Peoples Insurance Company Ltd.	10	7.75	0.775	0.354028
Eastern Insurance Co. Ltd.	10	13.3	1.33	0.755667
Phoenix Insurance Company Ltd.	10	10.4	1.04	0.831556
Karnaphuli Insurance Co. Ltd.	10	6.8	0.68	0.289
Pragati Insurance Ltd.	10	13.3	1.33	0.180667
Pioneer Insurance Company	10	9	0.9	0.544444
Asia Pacific General Insurance	10	8.9	0.89	0.245444
Continental Insurance Ltd.	10	5	0.5	0.166667

#### **ANOVA**

Source of Variation	SS	Df	MS	F	P-value	F crit
Between Groups Within Groups	12.41368 46.2905		1.241368 0.467581	2.654874	0.00651	1.927679
Total	58.70418	109				

From the above table for 10 and 99 degree of freedom it is concluded that Fcal is 2.654874 and Ftab is 1.927679.

Thus, Fcal>Ftab and p-value is lower than specified  $\alpha$  of 0.05.

So, null hypothesis is rejected and it is concluded that there is significant difference in Dividend per share between selected Insurance Companies.

#### 9. Dividend per Share of Companies of All Sectors Taken under the Study

H<sub>0</sub>: There is no significant difference in Dividend per Share between companies of all sectors taken under the study.

H<sub>1</sub>: There is significant difference in Dividend per Share between companies of all sectors taken under the study.

S	UN	ΛN	1	Δ	R	V
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Groups	Count	Sum	Average	Variance
Banks	10	10.76	1.076	0.190604
Financial	10	15.88	1.588	0.412262
Engineering	10	32.9	3.29	6.261822
Food & Allied	10	115.38	11.538	8.82164
Fuel & Power	10	47.77	4.777	4.45809
Textile	10	14.76	1.476	0.046404
Pharma &				
Chemical	10	146.82	14.682	43.38128
Insurance	10	9.96	0.996	0.11056

**ANOVA** 

Source of Variation	SS	df	MS	F	P-value	F crit
					9.61E-	
Between Groups	1949.089	7	278.4413	34.97859	21	2.139656
Within Groups	573.144	72	7.960333			
Total	2522.233	79				

From the above table for 7 and 72 degree of freedom it is concluded that Fcal is 34.97859 and Ftab is 2.139656.

Thus, Fcal>Ftab and p-value is lower than specified  $\alpha$  of 0.05.

So, null hypothesis is rejected and it is concluded that there is significant difference in Dividend per Share between companies of all sectors taken under the study.

#### 5.4.2 Correlation Testing

To examine the relationship between dividend per share and certain variables like ownership structure, reserve & surplus, net asset value per share, earnings per share, dividend payout ratio, dividend yield and stock price, Karl Pearson's Correlation test was used.

#### 1. Banking Sector

Correlations – Banking Sector
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		DPS	OS	R&S	NAVPS	EPS	DPR	DY	SP
	Pearson Correlation	1	.675*	.903**	.837**	628	.569	.963**	795**
DPS	Sig. (2-tailed)		.032	.000	.003	.052	.086	.000	.006
	N	10	10	10	10	10	10	10	10
	Pearson Correlation	.675*	1	.782**	.784**	830**	.723*	.690*	566
OS	Sig. (2-tailed)	.032		.008	.007	.003	.018	.027	.088
	N	10	10	10	10	10	10	10	10
	Pearson Correlation	.903**	.782**	1	.987**	701*	.822**	.849**	762*
R&S	Sig. (2-tailed)	.000	.008		.000	.024	.004	.002	.010
	N	10	10	10	10	10	10	10	10
	Pearson Correlation	.837**	.784**	.987**	1	661*	.852**	.788**	681*
NAVPS	Sig. (2-tailed)	.003	.007	.000		.037	.002	.007	.030
	N	10	10	10	10	10	10	10	10
	Pearson Correlation	628	830**	701*	661*	1	770**	666*	.642*
EPS	Sig. (2-tailed)	.052	.003	.024	.037		.009	.036	.045
	N	10	10	10	10	10	10	10	10
	Pearson Correlation	.569	.723*	.822**	.852**	770**	1	.601	645*
DPR	Sig. (2-tailed)	.086	.018	.004	.002	.009		.066	.044
	N	10	10	10	10	10	10	10	10
	Pearson Correlation	.963**	$.690^{*}$	.849**	.788**	666*	.601	1	811**
DY	Sig. (2-tailed)	.000	.027	.002	.007	.036	.066		.004
	N	10	10	10	10	10	10	10	10
	Pearson Correlation	795**	566	762*	681*	.642*	645*	811**	1
SP	Sig. (2-tailed)	.006	.088	.010	.030	.045	.044	.004	
	N	10	10	10	10	10	10	10	10

<sup>\*.</sup> Correlation is significant at the 0.05 level (2-tailed).

#### 1.1. Dividend per Share and Ownership Structure of Banking Companies

H<sub>0</sub>: There is no correlation between Dividend per Share and Ownership Structure of Banking Companies.

H<sub>1</sub>: There is correlation between Dividend per Share and Ownership Structure of Banking Companies.

#### Interpretation

Null hypothesis is rejected. Pearson correlation value is .675 and significance value is .032, which is less than the significance level of 0.05. So, there is a high degree of

<sup>\*\*.</sup> Correlation is significant at the 0.01 level (2-tailed).

positive correlation between Dividend per Share and Ownership Structure of Banking Companies.

#### 1.2. Dividend per Share and Reserve & Surplus of Banking Companies

H<sub>0</sub>: There is no correlation between Dividend per Share and Reserve & Surplus of Banking Companies.

H<sub>1</sub>: There is correlation between Dividend per Share and Reserve & Surplus of Banking Companies.

#### Interpretation

Null hypothesis is rejected. Pearson correlation value is 0.903 and significance value is .000, which is less than the level of significance of .01. So, there is a very high degree of positive correlation between Dividend per Share and Reserve & Surplus of Banking Companies.

#### 1.3. Dividend per Share and Net Asset Value per Share of Banking Companies

H<sub>0</sub>: There is no correlation between Dividend per Share and Net Asset Value per Share of Banking Companies.

H<sub>1</sub>: There is correlation between Dividend per Share and Net Asset Value per Share of Banking Companies.

#### Interpretation

Null hypothesis is rejected. Pearson correlation value is 0.837 and significance value is 0.003, which is less than the level of significance of 0.01. So, there is a high degree of positive correlation between Dividend per Share and Net Asset Value per Share of Banking Companies.

# 1.4 Dividend per Share and Earnings per Share of Banking Companies

H<sub>0</sub>: There is no correlation between Dividend per Share and Earnings per Share of Banking Companies.

H<sub>1</sub>: There is correlation between Dividend per Share and Earnings per Share of Banking Companies.

#### Interpretation

Null hypothesis is accepted. Pearson correlation value is -.628 and significance value is .052, which is higher than the level of significance. So, there is no significant correlation between Dividend per Share and Earnings per Share of Banking Companies.

#### 1.5 Dividend per Share and Dividend Payout Ratio of Banking Companies

H<sub>0</sub>: There is no correlation between Dividend per Share and Dividend Payout Ratio of Banking Companies.

H<sub>1</sub>: There is correlation between Dividend per Share and Dividend Payout Ratio of Banking Companies.

#### Interpretation

Null hypothesis is accepted. Pearson correlation value is .569 and significance value is .086, which is higher than the level of significance. So, there is no significant correlation between Dividend per Share and Dividend Payout Ratio of Banking Companies.

# 1.6 Dividend per Share and Dividend Yield of Banking Companies

H<sub>0</sub>: There is no correlation between Dividend per Share and Dividend Yield of Banking Companies.

H<sub>1</sub>: There is correlation between Dividend per Share and Dividend Yield of Banking Companies.

#### Interpretation

Null hypothesis is rejected. Pearson correlation value is .963 and significance value is .000, which is less than the level of significance of 0.01. So, there is a very high degree of correlation between Dividend per Share and Dividend Yield of Banking Companies.

# 1.7 Dividend per Share and Stock Price of Banking Companies

H<sub>0</sub>: There is no correlation between Dividend per Share and Stock Price of Banking Companies.

H<sub>1</sub>: There is correlation between Dividend per Share and Stock Price of Banking Companies.

## Interpretation

Null hypothesis is rejected. Pearson correlation value is -.795 and significance value is .006, which is less than the level of significance of 0.01. So, there is a high degree of negative correlation between Dividend per Share and Stock Price of Banking Companies.

#### 2. Financial Institutions Sector

**Correlations – Financial Institutions Sector** 

		DPS	OS	R&S	NAVPS	EPS	DPR	DY	SP
	Pearson Correlation	1	.897**	.436	518	710*	.897**	.881**	408
DPS	Sig. (2-tailed)		.000	.208	.125	.021	.000	.001	.242
	N	10	10	10	10	10	10	10	10
	Pearson Correlation	.897**	1	.380	551	687*	.773**	.717*	344
OS	Sig. (2-tailed)	.000		.279	.098	.028	.009	.020	.330
	N	10	10	10	10	10	10	10	10
	Pearson Correlation	.436	.380	1	.130	079	.582	.726*	849**
R&S	Sig. (2-tailed)	.208	.279		.721	.828	.077	.017	.002
	N	10	10	10	10	10	10	10	10
	Pearson Correlation	518	551	.130	1	.940**	582	380	277
NAVPS	Sig. (2-tailed)	.125	.098	.721		.000	.078	.279	.439
	N	10	10	10	10	10	10	10	10
	Pearson Correlation	710*	687*	079	.940**	1	769**	609	035
EPS	Sig. (2-tailed)	.021	.028	.828	.000		.009	.062	.923
	N	10	10	10	10	10	10	10	10
	Pearson Correlation	.897**	.773**	.582	582	769**	1	.939**	519
DPR	Sig. (2-tailed)	.000	.009	.077	.078	.009		.000	.124
	N	10	10	10	10	10	10	10	10
	Pearson Correlation	.881**	.717*	.726*	380	609	.939**	1	662*
DY	Sig. (2-tailed)	.001	.020	.017	.279	.062	.000		.037
	N	10	10	10	10	10	10	10	10
	Pearson Correlation	408	344	849**	277	035	519	662*	1
SP	Sig. (2-tailed)	.242	.330	.002	.439	.923	.124	.037	
	N	10	10	10	10	10	10	10	10

<sup>\*\*.</sup> Correlation is significant at the 0.01 level (2-tailed).

#### 2.1 Dividend per Share and Ownership Structure of Financial Institutions

H<sub>0</sub>: There is no correlation between Dividend per Share and Ownership Structure of Financial Institutions.

H<sub>1</sub>: There is correlation between Dividend per Share and Ownership Structure of Financial Institutions.

#### Interpretation

Null hypothesis is rejected. Pearson correlation value is .897 and significance value is .000, which is less than the level of significance of 0.01. So, there is a high degree of positive correlation between Dividend per Share and Ownership Structure of Financial Institutions.

<sup>\*.</sup> Correlation is significant at the 0.05 level (2-tailed).

#### 2.2 Dividend per Share and Reserve & Surplus of Financial Institutions

H<sub>0</sub>: There is no correlation between Dividend per Share and Reserve & Surplus of Financial Institutions.

H<sub>1</sub>: There is correlation between Dividend per Share and Reserve & Surplus of Financial Institutions.

#### Interpretation

Null hypothesis is accepted. Pearson correlation value is .436 and significance value is .208, which is less than the level of significance. So, there is no significant correlation between Dividend per Share and Reserve & Surplus of Financial Institutions.

#### 2.3 Dividend per Share and Net Asset Value per Share of Financial Institutions

H<sub>0</sub>: There is no correlation between Dividend per Share and Net Asset Value Per Share of Financial Institutions.

H<sub>1</sub>: There is correlation between Dividend per Share and Net Asset Value Per Share of Financial Institutions.

#### Interpretation

Null hypothesis is accepted. Pearson correlation value is -.518 and significance value is .125, which is higher than the level of significance. So, there is no significant correlation between Dividend per Share and Net Asset Value per Share of Financial Institutions.

# 2.4 Dividend per Share and Earnings per Share of Financial Institutions

H<sub>0</sub>: There is no correlation between Dividend per Share and Earnings per Share of Financial Institutions.

H<sub>1</sub>: There is correlation between Dividend per Share and Earnings per Share of Financial Institutions.

#### Interpretation

Null hypothesis is rejected. Pearson correlation value is -.710 and significance value is .021, which is less than the level of significance of 0.05. So, there is a high degree of negative correlation between Dividend per Share and Earnings per Share of Financial Institutions.

# 2.5 Dividend per Share and Dividend Payout Ratio of Financial Institutions

H<sub>0</sub>: There is no correlation between Dividend per Share and Dividend Payout Ratio of Financial Institutions.

H<sub>1</sub>: There is correlation between Dividend per Share and Dividend Payout Ratio of Financial Institutions.

#### Interpretation

Null hypothesis is rejected. Pearson correlation value is .897 and significance value is .000, which is less than the level of significance of 0.01. So, there is a high degree of positive correlation between Dividend per Share and Dividend Payout Ratio of Financial Institutions.

#### 2.6 Dividend per Share and Dividend Yield of Financial Institutions

H<sub>0</sub>: There is no correlation between Dividend per Share and Dividend Yield of Financial Institutions.

H<sub>1</sub>: There is correlation between Dividend per Share and Dividend Yield of Financial Institutions.

#### Interpretation

Null hypothesis is rejected. Pearson correlation value is .881 and significance value is .001, which is less than the level of significance of 0.01. So, there is a high degree of positive correlation between Dividend per Share and Dividend Yield of Financial Institutions.

# 2.7 Dividend per Share and Stock Price of Financial Institutions

H<sub>0</sub>: There is no correlation between Dividend per Share and Stock Price of Financial Institutions.

H<sub>1</sub>: There is correlation between Dividend per Share and Stock Price of Financial Institutions.

#### Interpretation

Null hypothesis is accepted. Pearson correlation value is -.408 and significance value is .242, which is higher than the level of significance. So, there is no significant correlation between Dividend per Share and Stock Price of Financial Institutions.

#### 3. Engineering Sector

**Correlations – Engineering Sector** 

		DPS	OS	R&S	NAVPS	EPS	DPR	DY	SP
	Pearson Correlation	1	287	.277	.725*	.444	.684*	.880**	102
DPS	Sig. (2-tailed)		.422	.438	.018	.199	.029	.001	.779
	N	10	10	10	10	10	10	10	10
	Pearson Correlation	287	1	.283	272	796**	343	.020	033
OS	Sig. (2-tailed)	.422		.428	.448	.006	.331	.956	.928
	N	10	10	10	10	10	10	10	10
	Pearson Correlation	.277	.283	1	.751*	400	208	.561	204
R&S	Sig. (2-tailed)	.438	.428		.012	.253	.564	.092	.572
	N	10	10	10	10	10	10	10	10
	Pearson Correlation	.725*	272	.751*	1	.230	.291	.750*	232
NAVPS	Sig. (2-tailed)	.018	.448	.012		.523	.414	.013	.520
	N	10	10	10	10	10	10	10	10
	Pearson Correlation	.444	796**	400	.230	1	.668*	.003	.256
EPS	Sig. (2-tailed)	.199	.006	.253	.523		.035	.994	.475
	N	10	10	10	10	10	10	10	10
	Pearson Correlation	.684*	343	208	.291	.668*	1	.447	.285
DPR	Sig. (2-tailed)	.029	.331	.564	.414	.035		.196	.425
	N	10	10	10	10	10	10	10	10
	Pearson Correlation	.880**	.020	.561	.750*	.003	.447	1	292
DY	Sig. (2-tailed)	.001	.956	.092	.013	.994	.196		.412
	N	10	10	10	10	10	10	10	10
	Pearson Correlation	102	033	204	232	.256	.285	292	1
SP	Sig. (2-tailed)	.779	.928	.572	.520	.475	.425	.412	
	N	10	10	10	10	10	10	10	10

<sup>\*.</sup> Correlation is significant at the 0.05 level (2-tailed).

#### 3.1 Dividend per Share and Ownership Structure of Engineering Companies

H<sub>0</sub>: There is no correlation between Dividend per Share and Ownership Structure Engineering Companies.

H<sub>1</sub>: There is correlation between Dividend per Share and Ownership Structure Engineering Companies.

#### Interpretation

Null hypothesis is accepted. Pearson correlation value is -.287 and significance value is .422, which is higher than the level of significance . So, there is no significant correlation between Dividend per Share and Ownership Structure Engineering Companies.

<sup>\*\*.</sup> Correlation is significant at the 0.01 level (2-tailed).

#### 3.2 Dividend per Share and Reserve & Surplus of Engineering Companies

H<sub>0</sub>: There is no correlation between Dividend per Share and Reserve & Surplus of Engineering Companies.

H<sub>1</sub>: There is correlation between Dividend per Share and Reserve & Surplus of Engineering Companies.

#### Interpretation

Null hypothesis is accepted. Pearson correlation value is .277 and significance value is .438, which is higher than the level of significance. So, there is no correlation between Dividend per Share and Reserve & Surplus of Engineering Companies.

#### 3.3 Dividend per Share and Net Asset Value per Share of Engineering Companies

H<sub>0</sub>: There is no correlation between Dividend per Share and Net Asset Value per Share of Engineering Companies.

H<sub>1</sub>: There is correlation between Dividend per Share and Net Asset Value per Share of Engineering Companies.

#### Interpretation

Null hypothesis is rejected. Pearson correlation value is .725 and significance value is .018, which is less than the significance level of .05. So, there is a high degree of positive correlation between Dividend per Share and Net Asset Value per Share of Engineering Companies.

#### 3.4 Dividend per Share and Earnings per Share of Engineering Companies

H<sub>0</sub>: There is no correlation between Dividend per Share and Earnings per Share of Engineering Companies.

H<sub>1</sub>: There is correlation between Dividend per Share and Earnings per Share of Engineering Companies.

#### Interpretation

Null hypothesis is accepted. Pearson correlation value is .444 and significance value is .199, which is higher than the significance level. So, there is no significant correlation between Dividend per Share and Earnings per Share of Engineering Companies.

#### 3.5 Dividend per Share and Dividend Payout Ratio of Engineering Companies

H<sub>0</sub>: There is no correlation between Dividend per Share and Dividend Payout Ratio of Engineering Companies.

H<sub>1</sub>: There is correlation between Dividend per Share and Dividend Payout Ratio of Engineering Companies.

#### Interpretation

Null hypothesis is rejected. Pearson correlation value is .684 and significance value is .029, which is less than the level of significance of .05. So, there is a high degree of positive correlation between Dividend per Share and Dividend Payout Ratio of Engineering Companies.

#### 3.6 Dividend per Share and Dividend Yield of Engineering Companies

H<sub>0</sub>: There is no correlation between Dividend per Share and Dividend Yield of Engineering Companies.

H<sub>1</sub>: There is correlation between Dividend per Share and Dividend Yield of Engineering Companies.

#### Interpretation

Null hypothesis is rejected. Pearson correlation value is .880 and significance value is .001, which is less than the level of significance of 0.01. So, there is a high degree of positive correlation between Dividend per Share and Dividend Yield of Engineering Companies.

#### 3.7 Dividend per Share and Stock Price of Engineering Companies

H<sub>0</sub>: There is no correlation between Dividend per Share and Stock Price of Engineering Companies.

H<sub>1</sub>: There is correlation between Dividend per Share and Stock Price of Engineering Companies.

# Interpretation

Null hypothesis is accepted. Pearson correlation value is -.102 and significance value is .779, which is higher than the significance level. So, there is no significant correlation between Dividend per Share and Stock Price of Engineering Companies.

#### 4. Food & Allied Product Sector

**Correlations – Food & Allied Products Sector** 

		DPS	OS	R&S	NAVPS	EPS	DPR	DY	SP
	Pearson Correlation	1	.508	.774**	.850**	.945**	.027	598	.914**
DPS	Sig. (2-tailed)		.133	.009	.002	.000	.941	.068	.000
	N	10	10	10	10	10	10	10	10
	Pearson Correlation	.508	1	.825**	.774**	.644*	097	412	.622
OS	Sig. (2-tailed)	.133		.003	.009	.045	.789	.237	.055
	N	10	10	10	10	10	10	10	10
	Pearson Correlation	.774**	.825**	1	.990**	.896**	269	642*	.895**
R&S	Sig. (2-tailed)	.009	.003		.000	.000	.453	.045	.000
	N	10	10	10	10	10	10	10	10
	Pearson Correlation	.850**	.774**	.990**	1	.943**	244	673*	.939**
NAVPS	Sig. (2-tailed)	.002	.009	.000		.000	.498	.033	.000
	N	10	10	10	10	10	10	10	10
	Pearson Correlation	.945**	.644*	.896**	.943**	1	031	668*	.961**
EPS	Sig. (2-tailed)	.000	.045	.000	.000		.932	.035	.000
	N	10	10	10	10	10	10	10	10
	Pearson Correlation	.027	097	269	244	031	1	.148	116
DPR	Sig. (2-tailed)	.941	.789	.453	.498	.932		.684	.751
	N	10	10	10	10	10	10	10	10
	Pearson Correlation	598	412	642*	673*	668*	.148	1	820**
DY	Sig. (2-tailed)	.068	.237	.045	.033	.035	.684		.004
	N	10	10	10	10	10	10	10	10
	Pearson Correlation	.914**	.622	.895**	.939**	.961**	116	820**	1
SP	Sig. (2-tailed)	.000	.055	.000	.000	.000	.751	.004	
	N	10	10	10	10	10	10	10	10

<sup>\*\*.</sup> Correlation is significant at the 0.01 level (2-tailed).

# 4.1 Dividend per Share and Ownership Structure of Food & Allied Product Companies

H<sub>0</sub>: There is no correlation between Dividend per Share and Ownership Structure of Food & Allied Product Companies.

H<sub>1</sub>: There is correlation between Dividend per Share and Ownership Structure of Food & Allied Product Companies.

#### Interpretation

Null hypothesis is accepted. Pearson correlation value is .508 and significance value is .133, which is higher than the level of significance. So, there is no significant correlation

<sup>\*.</sup> Correlation is significant at the 0.05 level (2-tailed).

between Dividend per Share and Ownership Structure of Food & Allied Product Companies.

# 4.2 Dividend per Share and Reserve & Surplus of Food & Allied Product Companies

H<sub>0</sub>: There is no correlation between Dividend per Share and Reserve & Surplus of Food & Allied Product Companies.

H<sub>1</sub>: There is correlation between Dividend per Share and Reserve & Surplus of Food & Allied Product Companies.

#### Interpretation

Null hypothesis is rejected. Pearson correlation value is .774 and significance value is .009, which is less than the significance value of 0.01. So, there is a high degree of positive correlation between Dividend per Share and Reserve & Surplus of Food & Allied Product Companies.

# 4.3 Dividend per Share and Net Asset Value per Share of Food & Allied Product Companies

H<sub>0</sub>: There is no correlation between Dividend per Share and Net Asset Value per Share of Food & Allied Product Companies.

H<sub>1</sub>: There is correlation between Dividend per Share and Net Asset Value per Share of Food & Allied Product Companies.

#### Interpretation

Null hypothesis is rejected. Pearson correlation value is .850 and significance value is .002, which is less than the significance value of 0.01. So, there is a high degree of positive correlation between Dividend per Share and Net Asset Value per Share of Food & Allied Product Companies.

# 4.4 Dividend per Share and Earnings per Share of Food & Allied Product Companies

H<sub>0</sub>: There is no correlation between Dividend per Share and Earnings per Share of Food & Allied Product Companies.

H<sub>1</sub>: There is correlation between Dividend per Share and Earnings per Share of Food & Allied Product Companies.

#### Interpretation

Null hypothesis is rejected. Pearson correlation value is .945 and significance value is .000, which is less than the significance value of 0.01. So, there is a very high degree of positive correlation between Dividend per Share and Earnings per Share of Food & Allied Product Companies.

# 4.5 Dividend per Share and Dividend Payout Ratio of Food & Allied Product Companies

H<sub>0</sub>: There is no correlation between Dividend per Share and Dividend Payout Ratio of Food & Allied Product Companies.

H<sub>1</sub>: There is correlation between Dividend per Share and Dividend Payout Ratio of Food & Allied Product Companies.

#### Interpretation

Null hypothesis is rejected. Pearson correlation value is .027 and significance value is .941, which is higher than the level of significance. So, there is no significant correlation between Dividend per Share and Dividend Payout Ratio of Food & Allied Product Companies.

# 4.6 Dividend per Share and Dividend Yield of Food & Allied Product Companies

H<sub>0</sub>: There is no correlation between Dividend per Share and Dividend Yield of Food & Allied Product Companies

H<sub>1</sub>: There is correlation between Dividend per Share and Dividend Yield of Food & Allied Product Companies

#### Interpretation

Null hypothesis is accepted. Pearson correlation value is -.598 and significance value is .068, which is higher than the level significance. So, there is no significant correlation between Dividend per Share and Dividend Yield of Food & Allied Product Companies.

# 4.7 Dividend per Share and Stock Price of Food & Allied Product Companies

H<sub>0</sub>: There is no correlation between Dividend per Share and Stock Price of Food & Allied Product Companies.

H<sub>1</sub>: There is correlation between Dividend per Share and Stock Price of Food & Allied Product Companies.

#### Interpretation

Null hypothesis is rejected. Pearson correlation value is .914 and significance value is .000, which is less than the level of significance of 0.01. So, there is a very high degree of positive correlation between Dividend per Share and Stock Price of Food & Allied Product Companies.

#### 5. Fuel & Power Sector

**Correlations – Fuel & Power Sector** 

		DPS	OS	R&S	NAVPS	EPS	DPR	DY	SP
	Pearson Correlation	1	888**	.964**	.976**	.901**	.877**	.919**	.532
DPS	Sig. (2-tailed)		.001	.000	.000	.000	.001	.000	.113
	N	10	10	10	10	10	10	10	10
	Pearson Correlation	888**	1	951**	900**	813**	684*	968**	243
OS	Sig. (2-tailed)	.001		.000	.000	.004	.029	.000	.499
	N	10	10	10	10	10	10	10	10
	Pearson Correlation	.964**	951**	1	.983**	.895**	.810**	.967**	.420
R&S	Sig. (2-tailed)	.000	.000		.000	.000	.005	.000	.226
	N	10	10	10	10	10	10	10	10
	Pearson Correlation	.976**	900**	.983**	1	.931**	.887**	.917**	.516
NAVPS	Sig. (2-tailed)	.000	.000	.000		.000	.001	.000	.127
	N	10	10	10	10	10	10	10	10
	Pearson Correlation	.901**	813**	.895**	.931**	1	.788**	.794**	.375
EPS	Sig. (2-tailed)	.000	.004	.000	.000		.007	.006	.285
	N	10	10	10	10	10	10	10	10
	Pearson Correlation	.877**	684*	.810**	.887**	.788**	1	.712*	.716*
DPR	Sig. (2-tailed)	.001	.029	.005	.001	.007		.021	.020
	N	10	10	10	10	10	10	10	10
	Pearson Correlation	.919**	968**	.967**	.917**	.794**	.712*	1	.264
DY	Sig. (2-tailed)	.000	.000	.000	.000	.006	.021		.460
	N	10	10	10	10	10	10	10	10
	Pearson Correlation	.532	243	.420	.516	.375	.716*	.264	1
SP	Sig. (2-tailed)	.113	.499	.226	.127	.285	.020	.460	
	N	10	10	10	10	10	10	10	10

<sup>\*\*.</sup> Correlation is significant at the 0.01 level (2-tailed).

#### 5.1 Dividend per Share and Ownership Structure of Fuel & Power Companies

H<sub>0</sub>: There is no correlation between Dividend per Share and Ownership Structure of Fuel & Power Companies.

H<sub>1</sub>: There is correlation between Dividend per Share and Ownership Structure of Fuel & Power Companies.

<sup>\*.</sup> Correlation is significant at the 0.05 level (2-tailed).

#### Interpretation

Null hypothesis is rejected. Pearson correlation value is -.888 and significance value is .001, which is less than level of significance of 0.01. So, there is a high degree of positive correlation between Dividend per Share and Ownership Structure of Fuel & Power Companies.

#### 5.2 Dividend per Share and Reserve & Surplus of Fuel & Power Companies

H<sub>0</sub>: There is no correlation between Dividend per Share and Reserve & Surplus of Fuel & Power Companies.

H<sub>1</sub>: There is correlation between Dividend per Share and Reserve & Surplus of Fuel & Power Companies.

#### **Interpretation**

Null hypothesis is rejected. Pearson correlation value is .964 and significance value is .000, which is less than the level of significance of 0.01. So, there is a very high degree of positive correlation between Dividend per Share and Reserve & Surplus of Fuel & Power Companies.

**5.3 Dividend per Share and Net Asset Value per Share of Fuel & Power Companies** H<sub>0</sub>: There is no correlation between Dividend per Share and Net Asset Value per Share of Fuel & Power Companies.

H<sub>1</sub>: There is correlation between Dividend Per Share and Net Asset Value per Share of Fuel & Power Companies.

#### Interpretation

Null hypothesis is rejected. Pearson correlation value is .976 and significance value is .00, which is less than the level of significance of 0.01. So, there is a very high degree of positive correlation between Dividend per Share and Net Asset Value per Share of Fuel & Power Companies.

**5.4 Dividend per Share and Earnings per Share of Fuel & Power Companies** H<sub>0</sub>: There is no correlation between Dividend per Share and Earnings per Share of Fuel & Power Companies.

H<sub>1</sub>: There is correlation between Dividend per Share and Earnings per Share of Fuel & Power Companies.

#### Interpretation

Null hypothesis is rejected. Pearson correlation value is .901 and significance value is .000, which is less than the level of significance of 0.01. So, there is a very high degree of positive correlation between Dividend per Share and Earnings per Share of Fuel & Power Companies.

#### 5.5 Dividend per Share and Dividend Payout Ratio of Fuel & Power Companies

H<sub>0</sub>: There is no correlation between Dividend per Share and Dividend Payout Ratio of Fuel & Power Companies.

H<sub>1</sub>: There is correlation between Dividend per Share and Dividend Payout Ratio of Fuel & Power Companies.

#### Interpretation

Null hypothesis is rejected. Pearson correlation value is .877 and significance value is .001, which is less than the level of significance of 0.01. So, there is a high degree of positive correlation between Dividend per Share and Dividend Payout Ratio of Fuel & Power Companies.

# 5.6 Dividend per Share and Dividend Yield of Fuel & Power Companies

H<sub>0</sub>: There is no correlation between Dividend per Share and Dividend Yield of Fuel & Power Companies.

H<sub>1</sub>: There is correlation between Dividend per Share and Dividend Yield of Fuel & Power Companies.

#### Interpretation

Null hypothesis is rejected. Pearson correlation value is .919 and significance value is .000, which is less than the level of significance of 0.01. So, there is a very high degree of positive correlation between Dividend per Share and Dividend Yield of Fuel & Power Companies.

#### 5.7 Dividend per Share and Stock Price of Fuel & Power Companies

H<sub>0</sub>: There is no correlation between Dividend per Share and Stock Price of Fuel & Power Companies.

H<sub>1</sub>: There is correlation between Dividend per Share and Stock Price of Fuel & Power Companies.

# Interpretation

Null hypothesis is accepted. Pearson correlation value is .532 and significance value is .113, which is higher than the level of significance. So, there is no significant correlation between Dividend per Share and Stock Price of Fuel & Power Companies.

## 6. Textile Sector

**Correlations – Textile Sector** 

		DPS	OS	R&S	NAVPS	EPS	DPR	DY	SP
	Pearson Correlation	1	113	.156	.795**	.687*	491	.437	031
DPS	Sig. (2-tailed)		.756	.668	.006	.028	.150	.207	.932
	N	10	10	10	10	10	10	10	10
	Pearson Correlation	113	1	.646*	.112	.309	311	.404	.677*
OS	Sig. (2-tailed)	.756		.043	.759	.385	.382	.246	.032
	N	10	10	10	10	10	10	10	10
	Pearson Correlation	.156	.646*	1	.141	.522	711*	.605	.674*
R&S	Sig. (2-tailed)	.668	.043		.698	.121	.021	.064	.033
	N	10	10	10	10	10	10	10	10
	Pearson Correlation	.795**	.112	.141	1	.797**	502	.357	.149
NAVPS	Sig. (2-tailed)	.006	.759	.698		.006	.140	.311	.681
	N	10	10	10	10	10	10	10	10
	Pearson Correlation	.687*	.309	.522	.797**	1	730*	.312	.425
EPS	Sig. (2-tailed)	.028	.385	.121	.006		.016	.381	.220
	N	10	10	10	10	10	10	10	10
	Pearson Correlation	491	311	711*	502	730*	1	530	275
DPR	Sig. (2-tailed)	.150	.382	.021	.140	.016		.115	.443
	N	10	10	10	10	10	10	10	10
	Pearson Correlation	.437	.404	.605	.357	.312	530	1	.025
DY	Sig. (2-tailed)	.207	.246	.064	.311	.381	.115		.946
	N	10	10	10	10	10	10	10	10
	Pearson Correlation	031	.677*	.674*	.149	.425	275	.025	1
SP	Sig. (2-tailed)	.932	.032	.033	.681	.220	.443	.946	
	N	10	10	10	10	10	10	10	10

<sup>\*\*.</sup> Correlation is significant at the 0.01 level (2-tailed).

# 6.1 Dividend per Share and Ownership Structure of Textile Companies

H<sub>0</sub>: There is no correlation between Dividend per Share and Ownership Structure of Textile Companies.

H<sub>1</sub>: There is correlation between Dividend per Share and Ownership Structure of Textile Companies.

## Interpretation

Null hypothesis is accepted. Pearson correlation value is -.113 and significance value is .756, which is higher than the level of significance. So, there is no significant correlation between Dividend per Share and Ownership Structure of Textile Companies.

<sup>\*.</sup> Correlation is significant at the 0.05 level (2-tailed).

# 6.2 Dividend per Share and Reserve & Surplus of Textile Companies

H<sub>0</sub>: There is no correlation between Dividend per Share and Reserve & Surplus of Textile Companies.

H<sub>1</sub>: There is correlation between Dividend per Share and Reserve & Surplus of Textile Companies

## Interpretation

Null hypothesis is accepted. Pearson correlation value is .156 and significance value is .668, which is higher than the level of significance. So, there is no significant correlation between Dividend per Share and Reserve & Surplus of Textile Companies.

# 6.3 Dividend per Share and Net Asset Value per Share of Textile Companies

H<sub>0</sub>: There is no correlation between Dividend per Share and Net Asset Value per Share of Textile Companies.

H<sub>1</sub>: There is correlation between Dividend per Share and Net Asset Value per Share of Textile Companies.

# Interpretation

Null hypothesis is rejected. Pearson correlation value is .795 and significance value is .006, which is less than the level of significance of 0.01. So, there is a high degree of positive correlation between Dividend per Share and Net Asset Value per Share of Textile Companies.

# 6.4 Dividend per Share and Earnings per Share of Textile Companies

H<sub>0</sub>: There is no correlation between Dividend per Share and Earnings per Share of Textile Companies.

H<sub>1</sub>: There is correlation between Dividend per Share and Earnings per Share of Textile Companies.

# Interpretation

Null hypothesis is rejected. Pearson correlation value is .687 and significance value is .028, which is less than the level of significance of 0.05. So, there is a high degree of

positive correlation between Dividend per Share and Earnings per Share of Textile Companies.

# 6.5 Dividend per Share and Dividend Payout Ratio of Textile Companies

H<sub>0</sub>: There is no correlation between Dividend per Share and Dividend Payout Ratio of Textile Companies.

H<sub>1</sub>: There is correlation between Dividend per Share and Dividend Payout Ratio of Textile Companies.

## Interpretation

Null hypothesis is rejected. Pearson correlation value is -.491 and significance value is .150, which is higher than the level of significance. So, there is no significant correlation between Dividend per Share and Dividend Payout Ratio of Textile Companies.

## 6.6 Dividend per Share and Dividend Yield of Textile Companies

H<sub>0</sub>: There is no correlation between Dividend per Share and Dividend Yield of Textile Companies.

H<sub>1</sub>: There is correlation between Dividend per Share and Dividend Yield of Textile Companies.

# Interpretation

Null hypothesis is accepted. Pearson correlation value is .437 and significance value is .207, which is higher than the level of significance. So, there is no significant correlation between Dividend per Share and Dividend Yield of Textile Companies.

# 6.7 Dividend per Share and Stock Price of Textile Companies

H<sub>0</sub>: There is no correlation between Dividend per Share and Stock Price of Textile Companies.

H<sub>1</sub>: There is correlation between Dividend per Share and Stock Price of Textile Companies.

## Interpretation

Null hypothesis is accepted. Pearson correlation value is -.031 and significance value is .932, which is higher than the level of significance. So, there is no significant correlation between Dividend per Share and Stock Price of Textile Companies.

## 7. Pharmaceuticals & Chemicals Sector

Correlations - Pharmaceuticals & Chemicals Sector

		DPS	OS	R&S	NAVPS	EPS	DPR	DY	SP
	Pearson Correlation	1	151	.855**	.785**	.827**	.596	.202	.882**
DPS	Sig. (2-tailed)		.677	.002	.007	.003	.069	.575	.001
	N	10	10	10	10	10	10	10	10
	Pearson Correlation	151	1	124	199	514	.222	364	.050
OS	Sig. (2-tailed)	.677		.733	.581	.128	.538	.302	.891
	N	10	10	10	10	10	10	10	10
	Pearson Correlation	.855**	124	1	.970**	.728*	.445	.388	.674*
R&S	Sig. (2-tailed)	.002	.733		.000	.017	.198	.267	.032
	N	10	10	10	10	10	10	10	10
	Pearson Correlation	.785**	199	.970**	1	.716*	.404	.531	.545
NAVPS	Sig. (2-tailed)	.007	.581	.000		.020	.246	.114	.104
	N	10	10	10	10	10	10	10	10
	Pearson Correlation	.827**	514	.728*	.716*	1	.297	.149	.734*
EPS	Sig. (2-tailed)	.003	.128	.017	.020		.404	.682	.016
	N	10	10	10	10	10	10	10	10
	Pearson Correlation	.596	.222	.445	.404	.297	1	.178	.564
DPR	Sig. (2-tailed)	.069	.538	.198	.246	.404		.623	.089
	N	10	10	10	10	10	10	10	10
	Pearson Correlation	.202	364	.388	.531	.149	.178	1	244
DY	Sig. (2-tailed)	.575	.302	.267	.114	.682	.623		.497
	N	10	10	10	10	10	10	10	10
	Pearson Correlation	.882**	.050	.674*	.545	.734*	.564	244	1
SP	Sig. (2-tailed)	.001	.891	.032	.104	.016	.089	.497	
	N	10	10	10	10	10	10	10	10

<sup>\*\*.</sup> Correlation is significant at the 0.01 level (2-tailed).

# 7.1 Dividend per Share and Ownership Structure of Pharmaceuticals & Chemicals Companies

H<sub>0</sub>: There is no correlation between Dividend per Share and Ownership Structure of Pharmaceuticals & Chemicals Companies.

H<sub>1</sub>: There is correlation between Dividend per Share and Ownership Structure of Pharmaceuticals & Chemicals Companies.

<sup>\*.</sup> Correlation is significant at the 0.05 level (2-tailed).

# Interpretation

Null hypothesis is accepted. Pearson correlation value is -.151 and significance value is .677, which is higher than the level of significance. So, there is no significant correlation between Dividend per Share and Ownership Structure of Pharmaceuticals & Chemicals Companies.

# 7.2 Dividend per Share and Reserve & Surplus of Pharmaceuticals & Chemicals Companies

H<sub>0</sub>: There is no correlation between Dividend per Share and Reserve & Surplus of Pharmaceuticals & Chemicals Companies.

H<sub>1</sub>: There is correlation between Dividend per Share and Reserve & Surplus of Pharmaceuticals & Chemicals Companies.

# Interpretation

Null hypothesis is rejected. Pearson correlation value is .855 and significance value is .002, which is less than the level of significance of 0.01. So, there is a high degree of positive correlation between Dividend per Share and Reserve & Surplus of Pharmaceuticals & Chemicals Companies.

# 7.3 Dividend per Share and Net Asset Value per Share of Pharmaceuticals & Chemicals Companies

H<sub>0</sub>: There is no correlation between Dividend Per Share and Net Asset per Share Value of Pharmaceuticals & Chemicals Companies.

H<sub>1</sub>: There is correlation between Dividend Per Share and Net Asset per Share Value of Pharmaceuticals & Chemicals Companies.

# Interpretation

Null hypothesis is rejected. Pearson correlation value is .785 and significance value is .007, which is less than the level of significance of 0.01. So, there is a high degree of positive correlation between Dividend per Share and Net Asset Value per Share of Pharmaceuticals & Chemicals Companies.

# 7.4 Dividend per Share and Earnings per Share of Pharmaceuticals & Chemicals Companies

H<sub>0</sub>: There is no correlation between Dividend per Share and Earnings per Share of Pharmaceuticals & Chemicals Companies.

H<sub>1</sub>: There is correlation between Dividend per Share and Earnings per Share of Pharmaceuticals & Chemicals Companies.

## Interpretation

Null hypothesis is rejected. Pearson correlation value is .827 and significance value is .003, which is less than the level significance of 0.01. So, there is a high degree of positive correlation between Dividend per Share and Earnings per Share of Pharmaceuticals & Chemicals Companies.

# 7.5 Dividend per Share and Dividend Payout Ratio of Pharmaceuticals & Chemicals Companies

H<sub>0</sub>: There is no correlation between Dividend per Share and Dividend Payout Ratio of Pharmaceuticals & Chemicals Companies.

H<sub>1</sub>: There is correlation between Dividend per Share and Dividend Payout Ratio of Pharmaceuticals & Chemicals Companies.

# Interpretation

Null hypothesis is rejected. Pearson correlation value is .596 and significance value is .069, which is higher than the level significance. So, there is no significant correlation between Dividend per Share and Dividend Payout Ratio of Pharmaceuticals & Chemicals Companies.

# 7.6 Dividend per Share and Dividend Yield of Pharmaceuticals & Chemicals Companies

H<sub>0</sub>: There is no correlation between Dividend per Share and Dividend Yield of Pharmaceuticals & Chemicals Companies.

H<sub>1</sub>: There is correlation between Dividend per Share and Dividend Yield of Pharmaceuticals & Chemicals Companies.

# Interpretation

Null hypothesis is accepted. Pearson correlation value is .202 and significance value is .575, which is higher than the level of significance. So, there is no significant correlation between Dividend per Share and Dividend Yield of Pharmaceuticals & Chemicals Companies.

# 7.7 Dividend per Share and Stock Price of Pharmaceuticals & Chemicals Companies

H<sub>0</sub>: There is no correlation between Dividend per Share and Stock Price of Pharmaceuticals & Chemicals Companies.

H<sub>1</sub>: There is correlation between Dividend per Share and Stock Price of Pharmaceuticals & Chemicals Companies.

# Interpretation

Null hypothesis is rejected. Pearson correlation value is .882 and significance value is .001, which is less than the level of significance of 0.01. So, there is a high degree of positive correlation between Dividend per Share and Stock Price of Pharmaceuticals & Chemicals Companies.

## 8. Insurance Sector

**Correlations – Insurance Sector** 

		DPS	OS	R&S	NAVPS	EPS	DPR	DY	SP
	Pearson Correlation	1	502	.923**	.909**	617	.944**	.945**	887**
DPS	Sig. (2-tailed)		.140	.000	.000	.058	.000	.000	.001
	N	10	10	10	10	10	10	10	10
	Pearson Correlation	502	1	427	494	.298	377	381	.557
OS	Sig. (2-tailed)	.140		.219	.147	.403	.282	.278	.094
	N	10	10	10	10	10	10	10	10
	Pearson Correlation	.923**	427	1	.990**	598	.857**	.906**	807**
R&S	Sig. (2-tailed)	.000	.219		.000	.068	.002	.000	.005
	N	10	10	10	10	10	10	10	10
	Pearson Correlation	.909**	494	.990**	1	522	.809**	.860**	805**
NAVPS	Sig. (2-tailed)	.000	.147	.000		.122	.005	.001	.005
	N	10	10	10	10	10	10	10	10
	Pearson Correlation	617	.298	598	522	1	776**	697*	.484
EPS	Sig. (2-tailed)	.058	.403	.068	.122		.008	.025	.156
	N	10	10	10	10	10	10	10	10
	Pearson Correlation	.944**	377	.857**	.809**	776**	1	.935**	848**
DPR	Sig. (2-tailed)	.000	.282	.002	.005	.008		.000	.002
	N	10	10	10	10	10	10	10	10
	Pearson Correlation	.945**	381	.906**	.860**	697*	.935**	1	866**
DY	Sig. (2-tailed)	.000	.278	.000	.001	.025	.000		.001
	N	10	10	10	10	10	10	10	10
	Pearson Correlation	887**	.557	807**	805**	.484	848**	866**	1
SP	Sig. (2-tailed)	.001	.094	.005	.005	.156	.002	.001	
	N	10	10	10	10	10	10	10	10

<sup>\*\*.</sup> Correlation is significant at the 0.01 level (2-tailed).

<sup>\*.</sup> Correlation is significant at the 0.05 level (2-tailed).

# 8.1 Dividend per Share and Ownership Structure of Insurance Companies

H<sub>0</sub>: There is no correlation between Dividend per Share and Ownership Structure of Insurance Companies.

H<sub>1</sub>: There is correlation between Dividend per Share and Ownership Structure of Insurance Companies.

## Interpretation

Null hypothesis is accepted. Pearson correlation value is -.502 and significance value is .140, which is higher than the level of significance. So, there is no significant correlation between Dividend per Share and Ownership Structure of Insurance Companies.

# 8.2 Dividend per Share and Reserve & Surplus of Insurance Companies

H<sub>0</sub>: There is no correlation between Dividend per Share and Reserve & Surplus of Insurance Companies.

H<sub>1</sub>: There is correlation between Dividend per Share and Reserve & Surplus of Insurance Companies.

## Interpretation

Null hypothesis is rejected. Pearson correlation value is .923 and significance value is .000, which is less than the level of significance of 0.01. So, there is very high degree of positive correlation between Dividend per Share and Reserve & Surplus of Insurance Companies.

# 8.3 Dividend per Share and Net Asset Value per Share of Insurance Companies

H<sub>0</sub>: There is no correlation between Dividend per Share and Net Asset Value per Share of Insurance Companies.

H<sub>1</sub>: There is correlation between Dividend per Share and Net Asset Value per Share of Insurance Companies.

# Interpretation

Null hypothesis is rejected. Pearson correlation value is .909 and significance value is .000, which is less than the level of significance of 0.01. So, there is a very high degree of positive correlation between Dividend per Share and Net Asset Value per Share of Insurance Companies.

# 8.4 Dividend per Share and Earnings per Share of Insurance Companies

H<sub>0</sub>: There is no correlation between Dividend per Share and Earnings per Share of Insurance Companies.

H<sub>1</sub>: There is correlation between Dividend per Share and Earnings per Share of Insurance Companies.

## Interpretation

Null hypothesis is accepted. Pearson correlation value is -.617 and significance value is .058, which is higher than the level of significance. So, there is no significant correlation between Dividend per Share and Earnings per Share of Insurance Companies.

## 8.5 Dividend per Share and Dividend Payout Ratio of Insurance Companies

H<sub>0</sub>: There is no correlation between Dividend per Share and Dividend Payout Ratio of Insurance Companies.

H<sub>1</sub>: There is correlation between Dividend per Share and Dividend Payout Ratio of Insurance Companies.

## Interpretation

Null hypothesis is accepted. Pearson correlation value is .944 and significance value is .000, which is less than the level of significance of 0.01. So, there is a very high degree of positive correlation between Dividend per Share and Dividend Payout Ratio of Insurance Companies.

# 8.6 Dividend per Share and Dividend Yield of Insurance Companies

H<sub>0</sub>: There is no correlation between Dividend per Share and Dividend Yield of Insurance Companies.

H<sub>1</sub>: There is correlation between Dividend per Share and Dividend Yield of Insurance Companies.

## Interpretation

Null hypothesis is rejected. Pearson correlation value is .945 and significance value is .000, which is less than the level of significance value of 0.01. So, there is a very high degree of positive correlation between Dividend per Share and Dividend Yield of Insurance Companies.

## 8.7 Dividend per Share and Stock Price of Insurance Companies

H<sub>0</sub>: There is no correlation between Dividend per Share and Stock Price of Insurance Companies.

H<sub>1</sub>: There is correlation between Dividend per Share and Stock Price of Insurance Companies.

# Interpretation

Null hypothesis is rejected. Pearson correlation value is –.887 and significance value is .001, which is less than the level of significance of 0.01. So, there is a high degree of negative correlation between Dividend per Share and Stock Price of Insurance Companies.

## 5.4.3 MULTIPLE REGRESSION

Multiple regression is used to investigate the impact of six explanatory variables such as ownership structure, log transformed value of reserve & surplus, net asset value per share, earnings per share, dividend payout ratio and dividend yield on dividend per share with a view to identifying the determinants of dividend policy for each of the selected sectors and firms of all the sectors taken together.

## 1. Banking Sector

Model Summary - Banking Sector

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.999ª	.998	.995	.03078
	.999 <sup>b</sup>	.998	.996	.02709

a. Predictors: (Constant), DY, DPR, OS, EPS, LN(R&S), NAVPS

b. Predictors: (Constant), DY, DPR, EPS, LN(R&S), NAVPS

#### **ANOVA**<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.713	6	.285	301.254	.000b
	Residual	.003	3	.001		
	Total	1.715	9			
2	Regression	1.713	5	.343	466.832	.000c
	Residual	.003	4	.001		
	Total	1.715	9			

- a. Dependent Variable: DPS
- b. Predictors: (Constant), DY, DPR, OS, EPS, LN(R&S), NAVPS
- c. Predictors: (Constant), DY, DPR, EPS, LN(R&S), NAVPS

#### Coefficients<sup>a</sup>

	Unstandard	ized Coefficients	Standardized Coefficients			Collinearity	Statistics			
Model	В	Std. Error	Beta	t	Sig.	Tolerance	VIF			
1 (Constant)	-2.810	.958		-2.932	.061					
os	004	.013	023	312	.775	.100	9.964			
LN(R&S)	.398	.095	.473	4.208	.025	.044	22.851			
NAVPS	.028	.016	.259	1.753	.178	.025	39.539			
EPS	093	.040	160	-2.359	.099	.120	8.368			
DPR	007	.001	452	-6.705	.007	.121	8.245			
DY	.101	.009	.544	10.725	.002	.215	4.657			
2 (Constant)	-3.074	.395		-7.782	.001					
LN(R&S)	.418	.061	.497	6.859	.002	.082	12.255			
NAVPS	.024	.009	.223	2.793	.049	.067	14.857			
EPS	084	.022	144	-3.799	.019	.298	3.358			
DPR	007	.001	443	-8.406	.001	.154	6.488			
DY	.101	.008	.542	12.256	.000	.219	4.569			

a. Dependent Variable: DPS

### **Statistical Inference**

The correlation coefficient (R) of .999 in the Model Summary indicates that there is a strong positive relationship between the variables. The coefficient of determination (R Square) of .998 denotes that 99.8% of variations in DPS are explained by DY, DPR, EPS, LN(R&S) and NAVPS. Therefore, only .2% of variations are for factors outside the model. The Adjusted R Square of 99.6 indicates that in actuality, 99.6% of variations in DPS are explained by DY, DPR, EPS, LN(R&S) and NAVPS.

The ANOVA table shows that the regression model has fitted the data well and overall regression model is statistically significant to predict the dependent variable (as the value of F-statistic 466.832 is significant at .000, which is less than the significance level of 1%).

The Coefficients table exhibits the backward elimination regression model produced using SPSS for Banking sector. The process of backward elimination starts with all the six explanatory variables in the model. It is evident that insignificant explanatory variable, OS, with the highest *p* value of .775 is dropped from the model. We see that the backward elimination process is left with five significant explanatory variables – LN(R&S), NAVPS, EPS, DPR and DY. So, the regression equation is:

DPS = -3.074 + .418 LN(R & S) + .024 NAVPS - .084 EPS - .007 DPR + .101 DY

## 2. Financial Institutions Sector

Model Summary - Financial Institutions Sector

			Adjusted R	Std. Error of the
Model	R	R Square	Square	Estimate
1	.992ª	.985	.954	.13755
2	.992 <sup>b</sup>	.985	.965	.11944
3	.992°	.984	.972	.10807

- a. Predictors: (Constant), DY, NAVPS, OS, LN(R&S), DPR, EPS
  b. Predictors: (Constant), DY, NAVPS, OS, LN(R&S), DPR
  c. Predictors: (Constant), DY, NAVPS, OS, LN(R&S)

## **ANOVA**<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3.654	6	.609	32.185	.008 <sup>b</sup>
	Residual	.057	3	.019		
	Total	3.710	9			
2	Regression	3.653	5	.731	51.217	.001°
	Residual	.057	4	.014		
	Total	3.710	9			
3	Regression	3.652	4	.913	78.175	.000 <sup>d</sup>
	Residual	.058	5	.012		
	Total	3.710	9			

- a. Dependent Variable: DPS
- b. Predictors: (Constant), DY, NAVPS, OS, LN(R&S), DPR, EPS
- c. Predictors: (Constant), DY, NAVPS, OS, LN(R&S), DPR d. Predictors: (Constant), DY, NAVPS, OS, LN(R&S)

## Coefficients<sup>a</sup>

	Unstandard	dized Coefficients	Standardized Coefficients			Collinearity	Statistics
Model	В	Std. Error	Beta	t	Sig.	Tolerance	VIF
1 (Constant)	1.161	1.453		.799	.483		
os	.066	.018	.430	3.645	.036	.366	2.731
LN(R&S)	485	.144	473	-3.377	.043	.260	3.849
NAVPS	.002	.004	.185	.622	.578	.057	17.450
EPS	.003	.027	.047	.127	.907	.037	26.742
DPR	.003	.009	.086	.285	.794	.056	17.945
DY	.366	.125	.898	2.923	.061	.054	18.524
2 (Constant)	1.159	1.261		.919	.410		
os	.066	.016	.429	4.197	.014	.368	2.718
LN(R&S)	481	.121	469	-3.971	.017	.276	3.626
NAVPS	.003	.001	.219	1.935	.125	.299	3.345
DPR	.002	.008	.079	.305		.058	17.282
DY	.362	.105	.888	3.459	.026	.058	17.124
3 (Constant)	1.173	1.140		1.029	.351		
os	.067	.014	.434	4.752	.005	.377	2.650
LN(R&S)	483	.109	471	-4.409	.007	.276	3.618
NAVPS	.003	.001	.201	2.303	.069	.412	2.426
DY	.388	.054	.952	7.227	.001	.181	5.514

a. Dependent Variable: DPS

## **Statistical Inference**

The correlation coefficient (R) of .992 in the Model Summary indicates that there is a strong positive relationship between the variables. The coefficient of determination (R Square) of .984 denotes that 98.4% of variations in DPS are explained by DY, NAVPS, OS and LN(R&S). Therefore, only 1.6% of variations are for factors outside the model. The Adjusted R Square of .972 indicates that in actuality, 97.2% of variations in DPS are explained by DY, NAVPS, OS and LN(R&S).

The ANOVA table shows that the regression model has fitted the data well and overall regression model is statistically significant to predict the dependent variable (as the value of F-statistic 78.175 is significant at .000, which is less than the significance level of 1%).

The Coefficients table exhibits the backward elimination regression model produced using SPSS for Financial Institutions sector. The process of backward elimination starts with all the six explanatory variables in the model. It is evident that insignificant explanatory variable, EPS, with the highest p value of .907 is dropped from the model in the very first stage. The process continues until all the explanatory variables left in the model have significant p value. We see that the backward elimination process is left with four significant explanatory variables – OS, LN(R&S), NAVPS and DY. So, the regression equation is:

$$DPS = 1.173 + .067 OS - .483 LN(R&S) + .003 NAVPS + .388 DY$$

# 3. Engineering Sector

## Model Summary - Engineering Sector

			Adjusted R	Std. Error of the
Model	R	R Square	Square	Estimate
1	.993ª	.986	.958	.51116
2	.993 <sup>b</sup>	.986	.968	.44750
3	.990°	.980	.965	.47046
4	.988 <sup>d</sup>	.976	.964	.47281
5	.985 <sup>e</sup>	.970	.962	.48989

a. Predictors: (Constant), DY, EPS, LN(R&S), OS, DPR, NAVPS

b. Predictors: (Constant), DY, EPS, LN(R&S), OS, DPR

c. Predictors: (Constant), DY, EPS, LN(R&S), OS

d. Predictors: (Constant), DY, EPS, OS

e. Predictors: (Constant), DY, EPS

### **ANOVA**<sup>a</sup>

Mode		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	55.573	6	9.262	35.448	.007b
	Residual	.784	3	.261		
	Total	56.356	9			
2	Regression	55.555	5	11.111	55.484	.001 <sup>c</sup>
	Residual	.801	4	.200		
	Total	56.356	9			
3	Regression	55.250	4	13.812	62.405	.000 <sup>d</sup>
	Residual	1.107	5	.221		
	Total	56.356	9			
4	Regression	55.015	3	18.338	82.032	.000e
	Residual	1.341	6	.224		
	Total	56.356	9			
5	Regression	54.676	2	27.338	113.915	.000 <sup>f</sup>
	Residual	1.680	7	.240		
	Total	56.356	9			

a. Dependent Variable: DPS

b. Predictors: (Constant), DY, EPS, LN(R&S), OS, DPR, NAVPS

c. Predictors: (Constant), DY, EPS, LN(R&S), OS, DPR

d. Predictors: (Constant), DY, EPS, LN(R&S), OS

e. Predictors: (Constant), DY, EPS, OS

f. Predictors: (Constant), DY, EPS

Coefficientsa

		dardized ïcients	Standardized Coefficients			Colline Statist	
Model	В	Std. Error	Beta	t	Sig.	Tolerance	VIF
1 (Constant )	-12.786	9.362		-1.366	.265		
OS	.184	.131	.183	1.407	.254	.274	3.654
LN(R&S)	823	1.100	169	748	.509	.091	11.049
NAVPS	.026	.101	.079	.256	.814	.049	20.254
EPS	1.450	.621	.595	2.337	.102	.072	13.976
DPR	007	.009	129	824	.470	.189	5.293
DY	2.576	.503	.966	5.121	.014	.130	7.681
2 (Constant )	-13.834	7.374		-1.876	.134		
OS	.180	.114	.179	1.584	.188	.277	3.607
LN(R&S)	567	.405	117	-1.400	.234	.512	1.954
EPS	1.564	.380	.641	4.113	.015	.146	6.843
DPR	008	.007	148	-1.235	.284	.246	4.062
DY	2.679	.264	1.005	10.148	.001	.362	2.761
3 (Constant )	-10.136	7.086		-1.431	.212		
os	.113	.105	.113	1.077	.331	.359	2.788
LN(R&S)	419	.407	086	-1.030	.350	.561	1.782
EPS	1.220	.272	.500	4.480	.007	.315	3.177
DY	2.463	.208	.924	11.867	.000	.648	1.543
4 (Constant )	-13.743	6.190		-2.220	.068		
OS	.129	.105	.128	1.231	.264	.366	2.730
EPS	1.325	.254	.544	5.224	.002	.366	2.729
DY	2.336	.168	.876	13.906	.000	.999	1.001
5 (Constant )	-6.179	.760		-8.129	.000		
EPS	1.077	.159	.442	6.768	.000	1.000	1.000
DY	2.344	.174	.879	13.474	.000	1.000	1.000

a. Dependent Variable: DPS

## **Statistical Inference**

The correlation coefficient (R) of .985 in the Model Summary indicates that there is a strong positive relationship between the variables. The coefficient of determination (R Square) of .970 denotes that 97% of variations in DPS are explained by DY and EPS. Therefore, only 3% of variations are for factors outside the model. The Adjusted R Square of .962 indicates that in actuality, 96.2% of variations in DPS are explained by DY and EPS.

The ANOVA table shows that the regression model has fitted the data well and overall regression model is statistically significant to predict the dependent variable (as the value

of F-statistic 113.915 is significant at .000, which is less than the significance level of 1%).

The Coefficients table exhibits the backward elimination regression model produced using SPSS for Engineering sector. The process of backward elimination starts with all the six explanatory variables in the model. It is evident that insignificant explanatory variable, NAVPS, with the highest p value of .814 is dropped from the model in the very first stage. The process continues until all the explanatory variables left in the model have significant p value. We see that the backward elimination process is left with two significant explanatory variables – EPS and DY. So, the regression equation is:

$$DPS = -6.179 + 1.077EPS + 2.344DY$$

## 4. Food & Allied Product Sector

# Model Summary - Food & Allied Product Sector

			Adjusted R	Std. Error of the
Model	R	R Square	Square	Estimate
1	.965ª	.931	.793	1.35182
2	.964 <sup>b</sup>	.929	.841	1.18411
3	.962°	.925	.865	1.09126
4	.961 <sup>d</sup>	.924	.886	1.00374
5	.953e	.908	.882	1.02097
6	.945 <sup>f</sup>	.893	.880	1.02901

- a. Predictors: (Constant), DY, DPR, OS, EPS, LN(R&S), NAVPS
- b. Predictors: (Constant), DPR, OS, EPS, LN(R&S), NAVPS
- c. Predictors: (Constant), DPR, EPS, LN(R&S), NAVPS
- d. Predictors: (Constant), EPS, LN(R&S), NAVPS
- e. Predictors: (Constant), EPS, NAVPS
- f. Predictors: (Constant), EPS

### **ANOVA**<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	73.913	6	12.319	6.741	.073 <sup>b</sup>
	Residual	5.482	3	1.827		
	Total	79.395	9			
2	Regression	73.786	5	14.757	10.525	.020°
	Residual	5.609	4	1.402		
	Total	79.395	9			
3	Regression	73.440	4	18.360	15.418	.005 <sup>d</sup>
	Residual	5.954	5	1.191		
	Total	79.395	9			
4	Regression	73.350	3	24.450	24.268	.001e
	Residual	6.045	6	1.008		
	Total	79.395	9			
5	Regression	72.098	2	36.049	34.584	.000 <sup>f</sup>
	Residual	7.297	7	1.042		
	Total	79.395	9			
6	Regression	70.924	1	70.924	66.981	.000 <sup>g</sup>
	Residual	8.471	8	1.059		
	Total	79.395	9			

- a. Dependent Variable: DPS
- b. Predictors: (Constant), DY, DPR, OS, EPS, LN(R&S), NAVPS
- c. Predictors: (Constant), DPR, OS, EPS, LN(R&S), NAVPS
- d. Predictors: (Constant), DPR, EPS, LN(R&S), NAVPS
- e. Predictors: (Constant), EPS, LN(R&S), NAVPS
- f. Predictors: (Constant), EPS, NAVPS
- g. Predictors: (Constant), EPS

Coefficients<sup>a</sup>

	Unstandardiz	zed Coefficients	Standardized Coefficients			Collinearity	Statistics
Model	В	Std. Error	Beta	t	Sig.	Tolerance	VIF
1 (Constant)	-63.415	83.646		758	.503		
os	.205	.506	.215	.405	.712	.082	12.197
LN(R&S)	9.966	11.707	2.148	.851	.457	.004	276.650
NAVPS	219	.260	-2.649	839	.463	.002	432.896
EPS	.492	.293	1.277	1.682	.191	.040	25.042
DPR	029	.063	143	469	.671	.247	4.045
DY	.399	1.519	.056	.263	.810	.516	1.937
2 (Constant)	-62.785	73.239		857	.440		
os	.219	.441	.229	.497	.646	.083	12.066
LN(R&S)	9.941	10.254	2.143	.969	.387	.004	276.632
NAVPS	222	.228	-2.692	975	.385	.002	431.768
EPS	.492	.256	1.276	1.918	.128	.040	25.040
DPR	030	.055	145	543	.616	.247	4.043
3 (Constant)	-31.288	33.749		927	.396		
LN(R&S)	5.858	5.646	1.263	1.038	.347	.010	98.744
NAVPS	120	.090	-1.453	-1.329	.241	.013	79.657
EPS	.425	.201	1.103	2.111	.089	.055	18.199
DPR	009	.033	044	276	.794	.587	1.704
4 (Constant)	-31.165	31.040		-1.004	.354		
LN(R&S)	5.781	5.187	1.246	1.115	.308	.010	98.506
NAVPS	112	.078	-1.355	-1.425	.204	.014	71.285
EPS	.396	.158	1.028	2.504	.046	.075	13.274
5 (Constant)	3.413	1.029		3.317	.013		
NAVPS	030	.028	364	-1.061	.324	.112	8.968
EPS	.497	.132	1.288	3.755	.007	.112	8.968
6 (Constant)	3.571	1.026		3.479	.008		
EPS	.364	.045	.945	8.184	.000	1.000	1.000

a. Dependent Variable: DPS

## **Statistical Inference**

The correlation coefficient (R) of .945 in the Model Summary indicates that there is a strong positive relationship between the variables. The coefficient of determination (R Square) of .893 denotes that 89.3% of variations in DPS are explained by EPS. Therefore, only 10.7% of variations are for factors outside the model. The Adjusted R Square of .880 indicates that in actuality, 88% of variations in DPS are explained by EPS.

The ANOVA table shows that the regression model has fitted the data well and overall regression model is statistically significant to predict the dependent variable (as the value of F-statistic 66.981 is significant at .000, which is less than the significance level of 1%).

The Coefficients table exhibits the backward elimination regression model produced using SPSS for Food & Allied Product sector. The process of backward elimination starts with all the six explanatory variables in the model. It is evident that insignificant explanatory variable, DY, with the highest p value of .81 is dropped from the model in the very first stage. The process continues until all the explanatory variables left in the model have significant p value. We see that the backward elimination process is left with one significant explanatory variable – EPS. So, the regression equation is:

$$DPS = 3.571 + .364 EPS$$

## 5. Fuel & Power Sector

## Model Summary - Fuel & Power Sector

			Adjusted R	Std. Error of the
1	R	R Square	Square	Estimate
1	.984ª	.969	.907	.64422
2	.984 <sup>b</sup>	.969	.930	.55973
3	.984°	.968	.942	.50870
4	.982 <sup>d</sup>	.964	.946	.49099
5	.972 <sup>e</sup>	.945	.929	.56151

- a. Predictors: (Constant), DY, DPR, EPS, OS, LN(R&S), NAVPS
- b. Predictors: (Constant), DY, DPR, EPS, OS, LN(R&S)
- c. Predictors: (Constant), DY, DPR, EPS, LN(R&S)
- d. Predictors: (Constant), DY, DPR, EPS
- e. Predictors: (Constant), DY, DPR

### **ANOVA**<sup>a</sup>

	7410-171								
Mode	)	Sum of Squares	df	Mean Square	F	Sig.			
1	Regression	38.878	6	6.480	15.613	.023 <sup>b</sup>			
	Residual	1.245	3	.415					
	Total	40.123	9						
2	Regression	38.870	5	7.774	24.813	.004°			
	Residual	1.253	4	.313					
	Total	40.123	9						
3	Regression	38.829	4	9.707	37.512	.001 <sup>d</sup>			
	Residual	1.294	5	.259					
	Total	40.123	9						
4	Regression	38.676	3	12.892	53.479	.000e			
	Residual	1.446	6	.241					
	Total	40.123	9						
5	Regression	37.916	2	18.958	60.128	.000 <sup>f</sup>			
	Residual	2.207	7	.315					
	Total	40.123	9						

- a. Dependent Variable: DPS
- b. Predictors: (Constant), DY, DPR, EPS, OS, LN(R&S), NAVPS
- c. Predictors: (Constant), DY, DPR, EPS, OS, LN(R&S)
- d. Predictors: (Constant), DY, DPR, EPS, LN(R&S)
- e. Predictors: (Constant), DY, DPR, EPS
- f. Predictors: (Constant), DY, DPR

Coefficients<sup>a</sup>

	Unstandardized Coefficients		Standardized Coefficients			Colline Statist	arity tics
Model	В	Std. Error	Beta	t	Sig.	Tolerance	VIF
1 (Constant)	1.428	18.573		.077	.944		
os	.042	.143	.133	.293	.788	.050	19.863
LN(R&S)	844	1.660	280	509	.646	.034	29.219
NAVPS	.011	.079	.131	.140	.897	.012	84.505
EPS	.155	.195	.322	.795	.485	.063	15.821
DPR	.028	.042	.237	.664	.554	.081	12.270
DY	1.502	1.260	.774	1.192	.319	.024	40.838
2 (Constant)	.885	15.781		.056	.958		
os	.045	.124	.141	.360	.737	.051	19.559
LN(R&S)	805	1.421	267	566	.601	.035	28.371
EPS	.177	.104	.366	1.696	.165	.167	5.972
DPR	.033	.019	.279	1.703	.164	.291	3.438
DY	1.598	.920	.824	1.737	.157	.035	28.818
3 (Constant)	5.527	8.285		.667	.534		
LN(R&S)	951	1.238	315	768	.477	.038	26.071
EPS	.171	.094	.356	1.829	.127	.171	5.858
DPR	.034	.018	.284	1.914	.114	.293	3.414
DY	1.434	.727	.739	1.973	.106	.046	21.780
4 (Constant)	822	.499		1.648	.150		
EPS	.128	.072	.265	1.776	.126	.269	3.712
DPR	.039	.015	.333	2.575	.042	.359	2.783
DY	.914	.254	.471	3.598	.011	.350	2.853
5 (Constant)	501	.532		943	.377		
DPR	.054	.015	.453	3.589	.009	.494	2.026
DY	1.156	.245	.596	4.727	.002	.494	2.026

a. Dependent Variable: DPS

## **Statistical Inference**

The correlation coefficient (R) of .972 in the Model Summary indicates that there is a strong positive relationship between the variables. The coefficient of determination (R Square) of .945 denotes that 94.5% of variations in DPS are explained by DY and DPR. Therefore, only 5.5% of variations are for factors outside the model. The Adjusted R Square of .929 indicates that in actuality, 92.9% of variations in DPS are explained by DY and DPR.

The ANOVA table shows that the regression model has fitted the data well and overall regression model is statistically significant to predict the dependent variable (as the value of F-statistic 60.128 is significant at .000, which is less than the significance level of 1%).

The Coefficients table exhibits the backward elimination regression model produced using SPSS for Fuel & Power sector. The process of backward elimination starts with all the six explanatory variables in the model. It is evident that insignificant explanatory variable, NAVPS, with the highest p value of .897 is dropped from the model in the very first stage. The process continues until all the explanatory variables left in the model have significant p value. We see that the backward elimination process is left with two significant explanatory variables – DPR and DY. So, the regression equation is:

$$DPS = -.501 + .054 DPR + 1.156 DY$$

## 6. Textile Sector

## **Model Summary - Textile Sector**

			Adjusted R	Std. Error of the	
Model	R	R Square	Square	Estimate	
1	.891ª	.794	.381	.16949	
2	.890 <sup>b</sup>	.792	.532	.14733	
3	.887 <sup>c</sup>	.786	.615	.13364	
4	.862 <sup>d</sup>	.744	.616	.13355	
5	.821 <sup>e</sup>	.674	.580	.13954	
6	.795 <sup>f</sup>	.632	.586	.13853	

- a. Predictors: (Constant), DY, EPS, OS, DPR, NAVPS, LN(R&S)
- b. Predictors: (Constant), DY, EPS, OS, DPR, NAVPS
- c. Predictors: (Constant), DY, EPS, OS, NAVPS
- d. Predictors: (Constant), DY, OS, NAVPS
- e. Predictors: (Constant), OS, NAVPS
- f. Predictors: (Constant), NAVPS

### **ANOVA**<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.331	6	.055	1.923	.316 <sup>b</sup>
	Residual	.086	3	.029		
	Total	.418	9			
2	Regression	.331	5	.066	3.048	.151°
	Residual	.087	4	.022		
	Total	.418	9			
3	Regression	.328	4	.082	4.596	.063 <sup>d</sup>
	Residual	.089	5	.018		
	Total	.418	9			
4	Regression	.311	3	.104	5.805	.033e
	Residual	.107	6	.018		
	Total	.418	9			
5	Regression	.281	2	.141	7.224	.020 <sup>f</sup>
	Residual	.136	7	.019		
	Total	.418	9			
6	Regression	.264	1	.264	13.763	.006 <sup>g</sup>
	Residual	.154	8	.019		
	Total	.418	9			

- a. Dependent Variable: DPS
- b. Predictors: (Constant), DY, EPS, OS, DPR, NAVPS, LN(R&S)
- c. Predictors: (Constant), DY, EPS, OS, DPR, NAVPS
- d. Predictors: (Constant), DY, EPS, OS, NAVPS
- e. Predictors: (Constant), DY, OS, NAVPS
- f. Predictors: (Constant), OS, NAVPS
- g. Predictors: (Constant), NAVPS

Coefficients

		Unstandard	dized Coefficients	Standardized Coefficients			Collinearity S	tatistics
М	odel	В	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	4.994	4.281		1.166	.328		
	os	070	.067	393	-1.045	.373	.485	2.061
	LN(R&S)	104	.691	113	150	.890	.121	8.270
	NAVPS	.005	.012	.303	.435	.693	.142	7.023
	EPS	.033	.045	.560	.730	.518	.117	8.575
	DPR	.001	.007	.095	.176	.872	.236	4.242
	DY	.163	.173	.435	.942	.416	.322	3.105
2	(Constant)	4.535	2.612		1.737	.157		
	os	075	.048	425	-1.556	.195	.698	1.433
	NAVPS	.006	.007	.375	.863	.437	.275	3.636
	EPS	.029	.033	.497	.892	.423	.168	5.969
	DPR	.002	.005	.136	.337	.753	.318	3.140
L	DY	.147	.118	.392	1.242	.282	.521	1.919
3	(Constant)	4.538	2.369		1.915	.114		
	os	073	.043	410	-1.678	.154	.715	1.398
	NAVPS	.007	.006	.427	1.160	.298	.315	3.175
	EPS	.022	.022	.369	.996	.365	.312	3.205
L.	DY	.126	.091	.335	1.385	.225	.728	1.373
4	(Constant)	3.484	2.118		1.645	.151		
	os	056	.040	318	-1.407	.209	.835	1.197
	NAVPS	.012	.004	.721	3.254	.017	.871	1.148
Ļ	DY	.116	.090	.308	1.282	.247	.738	1.355
5	(Constant)	2.515	2.067		1.216	.263		
1	OS	036	.039	204	940	.378	.988	1.013
L	NAVPS	.014	.004	.818	3.765	.007	.988	1.013
6	(Constant)	.585	.244		2.395	.044		
L	NAVPS	.014	.004	.795	3.710	.006	1.000	1.000

a. Dependent Variable: DPS

## **Statistical Inference**

The correlation coefficient (R) of .795 in the Model Summary indicates that there is a strong positive relationship between the variables. The coefficient of determination (R Square) of .632 denotes that 63.2% of variations in DPS are explained by NAVPS. Therefore, 36.8% of variations are for factors outside the model. The Adjusted R Square of .586 indicates that in actuality, 58.6% of variations in DPS are explained by NAVPS.

The ANOVA table shows that the regression model has fitted the data well and overall regression model is statistically significant to predict the dependent variable (as the value of F-statistic 13.763 is significant at .006, which is less than the significance level of 1%).

The Coefficients table exhibits the backward elimination regression model produced using SPSS for Textile sector. The process of backward elimination starts with all the six explanatory variables in the model. It is evident that insignificant explanatory variable, LN(R&S), with the highest p value of .890 is dropped from the model in the very first stage. The process continues until all the explanatory variables left in the model have significant p value. We see that the backward elimination process is left with one significant explanatory variable – NAVPS. So, the regression equation is:

$$DPS = .585 + .014 NAVPS$$

## 7. Pharmaceuticals & Chemicals Sector

Model Summary - Pharmaceuticals & Chemicals Sector

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.960ª	.922	.765	3.18989
2	.958 <sup>b</sup>	.917	.814	2.83902
3	.945°	.894	.809	2.87817
4	.932 <sup>d</sup>	.868	.802	2.92872
5	.896e	.803	.747	3.31483

- a. Predictors: (Constant), DY, EPS, DPR, OS, LN(R&S), NAVPS
- b. Predictors: (Constant), DY, EPS, OS, LN(R&S), NAVPS
- c. Predictors: (Constant), EPS, OS, LN(R&S), NAVPS
- d. Predictors: (Constant), EPS, OS, LN(R&S)
- e. Predictors: (Constant), EPS, LN(R&S)

#### **ANOVA**<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
Wodel					•	
1	Regression	359.905	6	59.984	5.895	.087b
	Residual	30.526	3	10.175		
	Total	390.432	9			
2	Regression	358.191	5	71.638	8.888	.027c
	Residual	32.240	4	8.060		
	Total	390.432	9			
3	Regression	349.012	4	87.253	10.533	.012 <sup>d</sup>
	Residual	41.419	5	8.284		
	Total	390.432	9			
4	Regression	338.967	3	112.989	13.173	.005e
	Residual	51.464	6	8.577		
	Total	390.432	9			
5	Regression	313.515	2	156.757	14.266	.003 <sup>f</sup>
	Residual	76.917	7	10.988		
	Total	390.432	9			

- a. Dependent Variable: DPS
- b. Predictors: (Constant), DY, EPS, DPR, OS, LN(R&S), NAVPS
- c. Predictors: (Constant), DY, EPS, OS, LN(R&S), NAVPS
- d. Predictors: (Constant), EPS, OS, LN(R&S), NAVPS
- e. Predictors: (Constant), EPS, OS, LN(R&S)
- f. Predictors: (Constant), EPS, LN(R&S)

Coefficientsa

		dardized cients	Standardized Coefficients			Colline: Statist	
Model	В	Std. Error	Beta	t	Sig.	Tolerance	VIF
1 (Constant)	-122.278	74.817		1.634	.201		
os	1.008	.814	.445	1.238	.304	.202	4.946
LN(R&S)	10.100	7.190	.882	1.405	.255	.066	15.144
NAVPS	342	.346	848	986	.397	.035	28.378
EPS	.846	.402	1.022	2.103	.126	.110	9.059
DPR	.039	.095	.097	.410	.709	.470	2.129
DY	3.777	5.963	.211	.633	.571	.234	4.270
2 (Constant)	-141.799	51.398		2.759	.051		
os	1.220	.562	.538	2.171	.096	.337	2.971
LN(R&S)	11.530	5.597	1.007	2.060	.108	.086	11.585
NAVPS	412	.268	-1.023	- 1.539	.199	.047	21.415
EPS	.936	.299	1.132	3.133	.035	.158	6.318
DY	4.959	4.647	.277	1.067	.346	.305	3.273
3 (Constant)	-104.398	38.114		2.739	.041		
os	.799	.406	.352	1.969	.106	.663	1.508
LN(R&S)	9.924	5.465	.867	1.816	.129	.093	10.747
NAVPS	233	.212	579	- 1.101	.321	.077	13.028
EPS	.705	.208	.852	3.382	.020	.334	2.992
4 (Constant)	-75.122	27.790		2.703	.035		
os	.689	.400	.304	1.723	.136	.706	1.417
LN(R&S)	4.445	2.300	.388	1.933	.101	.544	1.839
EPS	.602	.190	.728	3.175	.019	.418	2.391
5 (Constant)	-34.704	16.855		2.059	.078		
LN(R&S)	5.243	2.550	.458	2.056	.079	.567	1.764
EPS	.435	.184	.526	2.359	.050	.567	1.764

a. Dependent Variable: DPS

## **Statistical Inference**

The correlation coefficient (R) of .896 in the Model Summary indicates that there is a strong positive relationship between the variables. The coefficient of determination (R Square) of .803 denotes that 80.3% of variations in DPS are explained by EPS and LN(R&S). Therefore, only 19.7% of variations are for factors outside the model. The Adjusted R Square of .747 indicates that in actuality, 74.7% of variations in DPS are explained by EPS and LN(R&S).

The ANOVA table shows that the regression model has fitted the data well and overall regression model is statistically significant to predict the dependent variable (as the value of F-statistic 14.266 is significant at .003, which is less than the significance level of 1%).

The Coefficients table exhibits the backward elimination regression model produced using SPSS for Pharmaceuticals & Chemicals sector. The process of backward elimination starts with all the six explanatory variables in the model. It is evident that insignificant explanatory variable, DPR, with the highest p value of .709 is dropped from the model in the very first stage. The process continues until all the explanatory variables left in the model have significant p value. We see that the backward elimination process is left with two significant explanatory variables – LN(R&S) and EPS. So, the regression equation is:

$$DPS = -34.704 + 5.243 LN(R&S) + .435 EPS$$

### 8. Insurance Sector

Model Summary - Insurance Sector

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
		'		
1	.990 <sup>a</sup>	.980	.941	.08063
2	.990 <sup>b</sup>	.980	.956	.06985
3	.987°	.975	.955	.07044
4	.983 <sup>d</sup>	.967	.950	.07412
5	.976 <sup>e</sup>	.953	.939	.08194

- a. Predictors: (Constant), DY, OS, EPS, NAVPS, DPR, LN(R&S) b. Predictors: (Constant), DY, OS, EPS, NAVPS, DPR
- c. Predictors: (Constant), OS, EPS, NAVPS, DPR
- d. Predictors: (Constant), EPS, NAVPS, DPR
- e. Predictors: (Constant), NAVPS, DPR

**ANOVA**<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
Model					-	
1	Regression	.976	6	.163	25.012	.012 <sup>b</sup>
	Residual	.020	3	.007		
	Total	.995	9			
2	Regression	.976	5	.195	39.993	.002°
	Residual	.020	4	.005		
	Total	.995	9			
3	Regression	.970	4	.243	48.881	.000 <sup>d</sup>
	Residual	.025	5	.005		
	Total	.995	9			
4	Regression	.962	3	.321	58.381	.000e
	Residual	.033	6	.005		
	Total	.995	9			
5	Regression	.948	2	.474	70.600	.000 <sup>f</sup>
	Residual	.047	7	.007		
	Total	.995	9			

- a. Dependent Variable: DPS
- b. Predictors: (Constant), DY, OS, EPS, NAVPS, DPR, LN(R&S)
- c. Predictors: (Constant), DY, OS, EPS, NAVPS, DPR
- d. Predictors: (Constant), OS, EPS, NAVPS, DPR
- e. Predictors: (Constant), EPS, NAVPS, DPR
- f. Predictors: (Constant), NAVPS, DPR

#### Coefficients<sup>a</sup>

			1. 10 (6	01 1 11 10 15 1			0 11: "	0
			dized Coefficients	Standardized Coefficients			Collinearity	
M	odel	В	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	.701	6.158		.114	.917		
	os	023	.026	119	872	.448	.353	2.836
	LN(R&S)	054	1.230	064	044	.968	.003	331.912
	NAVPS	.025	.090	.260	.281	.797	.008	131.492
	EPS	.107	.067	.218	1.616	.204	.359	2.784
	DPR	.010	.007	.684	1.498	.231	.031	31.916
	DY	.040	.054	.249	.738	.514	.058	17.389
2	(Constant)	.434	.844		.515	.634		
	os	022	.016	114	-1.400	.234	.735	1.361
	NAVPS	.021	.015	.220	1.440	.223	.209	4.774
	EPS	.107	.058	.218	1.865	.136	.359	2.783
	DPR	.010	.003	.668	2.906	.044	.093	10.773
	DY	.038	.037	.239	1.042	.356	.093	10.773
3	(Constant)	.158	.808		.195	.853		
	os	020	.016	105	-1.281	.256	.744	1.344
	NAVPS	.029	.013	.298	2.218	.077	.275	3.631
	EPS	.106	.058	.215	1.823	.128	.360	2.781
	DPR	.012	.003	.830	4.861	.005	.171	5.844
4	(Constant)	801	.321		-2.493	.047		
	NAVPS	.035	.013	.361	2.740	.034	.318	3.149
	EPS	.097	.061	.197	1.599	.161	.365	2.742
L	DPR	.012	.003	.805	4.510	.004	.173	5.767
5	(Constant)	587	.323		-1.819	.112		
I	NAVPS	.041	.013	.421	3.017	.019	.346	2.892
	DPR	.009	.002	.603	4.318	.003	.346	2.892

a. Dependent Variable: DPS

## **Statistical Inference**

The correlation coefficient (R) of .976 in the Model Summary indicates that there is a strong positive relationship between the variables. The coefficient of determination (R Square) of .953 denotes that 95.3% of variations in DPS are explained by NAVPS and DPR. Therefore, only 4.7% of variations are for factors outside the model. The Adjusted R Square of .939 indicates that in actuality, 93.9% of variations in DPS are explained by NAVPS and DPR.

The ANOVA table shows that the regression model has fitted the data well and overall regression model is statistically significant to predict the dependent variable (as the value of F-statistic 70.600 is significant at .000, which is less than the significance level of 1%).

The Coefficients table exhibits the backward elimination regression model produced using SPSS for Insurance sector. The process of backward elimination starts with all the six explanatory variables in the model. It is evident that insignificant explanatory variable, LN(R&S), with the highest p value of .968 is dropped from the model in the very first stage. The process continues until all the explanatory variables left in the model have significant p value. We see that the backward elimination process is left with two significant explanatory variables – NAVPS and DPR. So, the regression equation is:

$$DPS = -.587 + .041NAVPS + .009DPR$$

## 9. All Sectors Taken Together

Model Summary - All Sectors Taken Together

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.995ª	.990	.969	.21257
2	.995 <sup>b</sup>	.990	.976	.18409
3	.994°	.988	.979	.17534
4	.991 <sup>d</sup>	.983	.974	.19406

- a. Predictors: (Constant), DY, OS, EPS, DPR, NAVPS, LN(R&S)
- b. Predictors: (Constant), OS, EPS, DPR, NAVPS, LN(R&S)
- c. Predictors: (Constant), OS, EPS, DPR, LN(R&S)
- d. Predictors: (Constant), OS, EPS, DPR

#### **ANOVA**<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	12.818	6	2.136	47.277	.005 <sup>b</sup>
	Residual	.136	3	.045		
	Total	12.953	9			
2	Regression	12.818	5	2.564	75.644	.000°
	Residual	.136	4	.034		
	Total	12.953	9			
3	Regression	12.799	4	3.200	104.079	.000 <sup>d</sup>
	Residual	.154	5	.031		
	Total	12.953	9			
4	Regression	12.727	3	4.242	112.656	.000e
	Residual	.226	6	.038		
	Total	12.953	9			

- a. Dependent Variable: DPS
- b. Predictors: (Constant), DY, OS, EPS, DPR, NAVPS, LN(R&S)
- c. Predictors: (Constant), OS, EPS, DPR, NAVPS, LN(R&S)
- d. Predictors: (Constant), OS, EPS, DPR, LN(R&S)
- e. Predictors: (Constant), OS, EPS, DPR

#### Coefficients<sup>a</sup>

	Unstandardiz	ed Coefficients	Standardized Coefficients			Collinearity S	Statistics
Model	В	Std. Error	Beta	t	Sig.	Tolerance	VIF
1 (Constant)	-12.142	4.299		-2.824	.067		
os	.150	.062	.164	2.397	.096	.749	1.335
LN(R&S)	.529	.549	.232	.962	.407	.060	16.651
NAVPS	015	.024	104	623	.578	.125	7.986
EPS	.254	.102	.293	2.485	.089	.252	3.975
DPR	.067	.014	.604	4.659	.019	.208	4.814
DY	.000	.144	.000	002	.999	.191	5.245
2 (Constant)	-12.137	3.065		-3.960	.017		
OS	.150	.054	.164	2.778	.050	.755	1.324
LN(R&S)	.528	.362	.232	1.457	.219	.104	9.654
NAVPS	015	.020	104	732	.505	.130	7.693

EPS	.254	.089	.293	2.869	.046	.252	3.975
DPR	.067	.012	.604	5.410	.006	.210	4.761
3 (Constant)	-11.123	2.604		-4.271	.008		
OS	.149	.051	.163	2.910	.033	.755	1.324
LN(R&S)	.315	.205	.138	1.533	.186	.292	3.420
EPS	.214	.066	.246	3.246	.023	.414	2.416
DPR	.072	.009	.655	7.916	.001	.347	2.885
4 (Constant)	-9.950	2.755		-3.612	.011		
os	.160	.056	.175	2.851	.029	.770	1.298
EPS	.264	.063	.303	4.159	.006	.547	1.827
DPR	.080	.008	.725	9.473	.000	.497	2.014

a. Dependent Variable: DPS

### **Statistical Inference**

The correlation coefficient (R) of .991 in the Model Summary indicates that there is a strong positive relationship between the variables. The coefficient of determination (R Square) of .983 denotes that 98.3% of variations in DPS are explained by OS, EPS and DPR. Therefore, only 1.7% of variations are for factors outside the model. The Adjusted R Square of .974 indicates that in actuality, 97.4% of variations in DPS are explained by NAVPS and DPR.

The ANOVA table shows that the regression model has fitted the data well and overall regression model is statistically significant to predict the dependent variable (as the value of F-statistic 112.656 is significant at .000, which is less than the significance level of 1%).

The Coefficients table exhibits the backward elimination regression model produced using SPSS for All Sectors Taken Together. The process of backward elimination starts with all the six explanatory variables in the model. It is evident that insignificant explanatory variable, DY, with the highest p value of .999 is dropped from the model in the very first stage. The process continues until all the explanatory variables left in the model have significant p value. We see that the backward elimination process is left with three significant explanatory variables – OS, EPS and DPR. So, the regression equation is:

$$DPS = -9.950 + .160 OS + .264 EPS + .080 DPR$$

### 5.4.4 SIMPLE LINEAR REGRESSION

In the above section of analysis, we have run multiple linear regression taking Dividend per Share as dependent variable and Ownership Structure, Reserve & Surplus, Net asset Value per Share, Earnings per Share, Dividend Payout Ratio and Dividend Yield as independent variables. Now, this section will provide details about simple linear regression analysis for Dividend per Share as independent variable and Stock Price as dependent variable.

# 1. Banking Sector

Model Summary - Banking Sector

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.795a	.632	.586	17.63206

a. Predictors: (Constant), DPS

ANOVA<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
	Regression	4279.325	1	4279.325	13.765	.006b
1	Residual	2487.117	8	310.890		
	Total	6766.442	9			

a. Dependent Variable: Stock Price

b. Predictors: (Constant), DPS

Coefficients<sup>a</sup>

Mod	el	Unstandardized (	Coefficients	Standardized Coefficients	t	Sig.
		В	Std. Error	Beta		
(	Constant)	100.447	15.521		6.472	.000
1 E	OPS	-49.946	13.462	795	-3.710	.006

a. Dependent Variable: Stock Price

#### **Statistical Inference**

The correlation coefficient (R) of .795 in the Model Summary indicates that there is a high degree of positive relationship between the variables. The coefficient of determination (R Square) of .632 denotes that 63.2% of variations in SP are explained by DPS. Therefore, 36.8% of variations are for factors outside the model. The Adjusted R square of .586 indicates that in actuality, 58.6% of variations in SP are explained by DPS.

The ANOVA table shows that the regression model has fitted the data well and overall regression model is statistically significant to predict the dependent variable (as the value of F-statistic 13.765 is significant at .006, which is less than the significance level of 1%).

From the Unstandardized Coefficients of the Coefficients table, the prediction equation for the Banking Sector can be developed as under:

Stock Price = 100.447 - 49.946 *DPS* 

### 2. Financial Institutions Sector

### **Model Summary - Financial Institutions Sector**

1	Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
	1	.408a	.167	.062	92.19085

a. Predictors: (Constant), DPS

#### ANOVA<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
	Regression	13598.345	1	13598.345	1.600	.242 <sup>b</sup>
1	Residual	67993.218	8	8499.152		
	Total	81591.563	9			

a. Dependent Variable: Stock Price b. Predictors: (Constant), DPS

#### Coefficients<sup>a</sup>

Model		Unstanda	ardized Coefficients	Standardized Coefficients	t	Sig.
		В	Std. Error	Beta		
1	(Consta	nt) 211.888	81.402		2.603	.031
	DPS	-60.539	47.861	408	-1.265	.242

a. Dependent Variable: Stock Price

## **Statistical Inference**

The correlation coefficient (R) of .408 in the Model Summary indicates that there is a moderate degree of positive relationship between the variables. The coefficient of determination (R Square) of .167 denotes that only 16.7% of variations are in SP are explained by DPS. Therefore, 83.3% of variations are for factors outside the model. The Adjusted R square of .062 indicates that in actuality, only 6.2% of variations in SP are explained by DPS.

The ANOVA table shows that the regression model has not fitted the data well and overall regression model is not statistically significant to predict the dependent variable (as the value of F-statistic 1.600 is significant at .242, which is higher than the significance level of 5%).

Thus, there is no significant effect of dividend per share on stock price of Financial Institutions Sector and the prediction equation for the Sector cannot be developed from the Unstandardized Coefficients of the Coefficients table.

## 3. Engineering Sector

Model Summary - Engineering Sector

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.102a	.010	113	80.62773

a. Predictors: (Constant), DPS

**ANOVA**<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
	Regression	545.966	1	545.966	.084	.779 <sup>b</sup>
1	Residual	52006.646	8	6500.831		
	Total	52552.613	9			

a. Dependent Variable: Stock Price

b. Predictors: (Constant), DPS

Coefficients<sup>a</sup>

Model		Unstanda	rdized Coefficients	Standardized Coefficients	Sig.
		В	Std. Error	Beta	
	(Constant)	195.085	43.574		.002
	DPS	-3.113	10.740	102	.779

a. Dependent Variable: Stock Price

## **Statistical Inference**

The regression coefficient (R) of .102 in the Model Summary indicates that there is a low degree of positive relationship between the variables. The coefficient of determination (R Square) of .010 denotes that only 1% of variations in SP are explained by DPS. Therefore, 99% of variations are for factors outside the model.

The ANOVA table shows that the regression model has not fitted the data well and overall regression model is not statistically significant to predict the dependent variable (as the value of F-statistic .084 is significant at .779, which is higher than the significance level of 5%).

Thus, there is no significant effect of dividend per share on stock price of Engineering Sector and the prediction equation for the Sector cannot be developed from the Unstandardized Coefficients of the Coefficients table.

### 4. Food & Allied Products Sector

Model Summary - Food & Allied Products Sector

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.914ª	.835	.814	118.99010

a. Predictors: (Constant), DPS

#### **ANOVA**<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
	Regression	573316.862	1	573316.862	40.492	$.000^{b}$
1	Residual	113269.157	8	14158.645		
	Total	686586.018	9			

a. Dependent Variable: Stock Price

b. Predictors: (Constant), DPS

Coefficients<sup>a</sup>

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		В	Std. Error	Beta		
1	(Constant)	-363.226	158.608		2.290	.051
	DPS	84.977	13.354	.914	6.363	.000

a. Dependent Variable: Stock Price

## **Statistical Inference**

The correlation coefficient (R) of .914 in the Model Summary indicates that there is a strong positive relationship between the variables. The coefficient of determination (R Square) of .835 denotes that 83.5% of variations in SP are explained by DPS. Therefore, only 16.5% of variations are for factors outside the model. The Adjusted R square of .814 indicates that in actuality, 81.4% of variations in SP are explained by DPS.

The ANOVA table shows that the regression model has fitted the data well and overall regression model is statistically significant to predict the dependent variable (as the value of F-statistic 40.492 is significant at .000, which is less than the significance level of 1%).

From the Unstandardized Coefficients of the Coefficients table, the prediction equation for the Food & Allied Product Sector can be developed as under:

Stock Price = 
$$-363.226 + 84.977 DPS$$

### 5. Fuel & Power Sector

**Model Summary - Fuel & Power Sector** 

Model	R	R	Adjusted R	Std. Error of the
		Square	Square	Estimate
1	.532ª	.283	.193	96.43996

a. Predictors: (Constant), DPS

#### **ANOVA**<sup>a</sup>

Model		Sum of Squares	df	Mean	F	Sig.
				Square		
	Regression	29366.807	1	29366.807	3.157	.113 <sup>b</sup>
1	Residual	74405.334	8	9300.667		
	Total	103772.141	9			

a. Dependent Variable: Stock Price

b. Predictors: (Constant), DPS

#### Coefficients<sup>a</sup>

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		В	Std. Error	Beta		
1	(Constant)	157.104	78.866		1.992	.082
1	DPS	27.054	15.225	.532	1.777	.113

a. Dependent Variable: Stock Price

## **Statistical Inference**

The correlation coefficient (R) of .532 in the Model Summary indicates that there is a moderate degree of positive relationship between the variables. The coefficient of determination (R Square) of .283 denotes that only 28.3% of variations in SP are explained by DPS. Therefore, 71.7% of variations are for factors outside the model. The Adjusted R square of .193 indicates that in actuality, only 19.3% of variations in SP are explained by DPS.

The ANOVA table shows that the regression model has not fitted the data well and overall regression model is not statistically significant to predict the dependent variable (as the value of F-statistic 3.157 is significant at .113, which is higher than the significance level of 5%).

Thus, there is no significant effect of dividend per share on stock price of Fuel & Power Sector and the prediction equation for the Sector cannot be developed from the Unstandardized Coefficients of the Coefficients table.

# 6. Textile Sector

#### **Model Summary - Textile Sector**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.031a	.001	124	57.37988

a. Predictors: (Constant), DPS

#### **ANOVA**<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
	Regression	25.232	1	25.232	.008	.932 <sup>b</sup>
1	Residual	26339.602	8	3292.450		
	Total	26364.834	9			

a. Dependent Variable: Stock Price

b. Predictors: (Constant), DPS

#### Coefficients<sup>a</sup>

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		В	Std. Error	Beta		
1	(Constant)	207.038	132.303		1.565	.156
1	DPS	-7.773	88.789	031	088	.932

a. Dependent Variable: Stock Price

# **Statistical Inference**

The correlation coefficient (R) of .031 in the Model Summary indicates that there is a low degree of positive relationship between the variables. The coefficient of determination (R Square) of .001 denotes that only .1% of changes in SP are explained by DPS. Therefore, 99.9% of variations are for factors outside the model.

The ANOVA table shows that the regression model has not fitted the data well and overall regression model is not statistically significant to predict the dependent variable (as the value of F-statistic .008 is significant at.932, which is higher than the significance level of 5%).

Thus, there is no significant effect of dividend per share on stock price of Textile Sector and the prediction equation for the Sector cannot be developed from the Unstandardized Coefficients of the Coefficients table.

# 7. Pharmaceuticals & Chemicals Sector

### Model Summary - Pharmaceuticals & Chemicals Sector

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.882a	.778	.750	87.33742

a. Predictors: (Constant), DPS

#### ANOVA<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
	Regression	214116.816	1	214116.816	28.070	.001 <sup>b</sup>
1	Residual	61022.604	8	7627.825		
	Total	275139.420	9			

a. Dependent Variable: Stock Price

b. Predictors: (Constant), DPS

#### Coefficients<sup>a</sup>

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		В	Std. Error	Beta		
1	(Constant)	313.562	70.528		4.446	.002
1	DPS	23.418	4.420	.882	5.298	.001

a. Dependent Variable: Stock Price

# **Statistical Inference**

The correlation coefficient (R) of .882 in the Model Summary indicates that there is a strong positive relationship between the variables. The coefficient of determination (R Square) of .778 denotes that 77.8% of changes in SP are explained by DPS. Therefore, only 22.2% of variations are for factors outside the model. The Adjusted R square of .750 indicates that in actuality, 75% of variations in SP are explained by DPS.

The ANOVA table shows that the regression model has fitted the data well and overall regression model is statistically significant to predict the dependent variable (as the value of F-statistic 28.070 is significant at .001, which is less than the significance level of 1%). From the Unstandardized Coefficients of the Coefficients table, the prediction equation for the Pharmaceuticals & Chemicals Sector can be developed as under:

Stock Price = 313.562 + 23.418 DPS

# 8. Insurance Sector

### **Model Summary - Insurance Sector**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.887a	.787	.761	19.84223

a. Predictors: (Constant), DPS

#### **ANOVA**<sup>a</sup>

Model		Sum of Squares	df	Mean	F	Sig.
				Square		
	Regression	11651.815	1	11651.815	29.595	.001 <sup>b</sup>
1	Residual	3149.713	8	393.714		
	Total	14801.528	9			

a. Dependent Variable: Stock Price

b. Predictors: (Constant), D

#### Coefficients<sup>a</sup>

Model		Unstandardized Coefficients Standardized Coefficients		t	Sig.	
		В	Std. Error	Beta		
1	(Constant)	162.163	20.782		7.803	.000
1	DPS	-108.212	19.892	887	-5.440	.001

a. Dependent Variable: Stock Price

### **Statistical Inference**

The correlation coefficient (R) of .887 in the Model Summary indicates that there is a strong positive relationship between the variables. The coefficient of determination (R Square) of .787 denotes that 78.7% of variations in SP are explained by DPS. Therefore, only 21.3% of variations are for factors outside the model. The Adjusted R square of .761 indicates that in actuality, 76.1% of variations in SP are explained by DPS.

The ANOVA table shows that the regression model has fitted the data well and overall regression model is statistically significant to predict the dependent variable (as the value of F-statistic 29.595 is significant at .001, which is less than the significance level of 1%).

From the Unstandardized Coefficients of the Coefficients table, the prediction equation for the Insurance Sector can be developed as under:

Stock Price = 162.163 - 108.212 DPS

# 9. All Sectors Taken Together

Model Summary - All Sectors Taken Together

			Adjusted R	Std. Error of the
Model	R	R Square	Square	Estimate
1	.684ª	.467	.401	41.65508

a. Predictors: (Constant), DPS

#### **ANOVA**<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	12176.407	1	12176.407	7.018	.029 <sup>b</sup>
	Residual	13881.165	8	1735.146		
	Total	26057.572	9			

a. Dependent Variable: Stock Price

b. Predictors: (Constant), DPS

#### Coefficients<sup>a</sup>

	Unstandardized Coefficients		Standardized Coefficients			Collinearity S	Statistics
Model	В	Std. Error	Beta	t	Sig.	Tolerance	VIF
1 (Constant)	98.606	49.114		2.008	.080		
DPS	30.660	11.574	.684	2.649	.029	1.000	1.000

a. Dependent Variable: Stock Price

### **Statistical Inference**

The correlation coefficient (R) of .684 in the Model Summary indicates that there is a strong positive relationship between the variables. The coefficient of determination (R Square) of .467 denotes that 46.7% of variations in Stock Price are explained by DPS. Therefore, 53.3% of variations are for factors outside the model. The Adjusted R Square of .401 indicates that in actuality, 40.1% of variations in Stock Price are explained by DPS.

The ANOVA table shows that the regression model has fitted the data well and overall regression model is statistically significant to predict the dependent variable (as the value of F-statistic 7.018 is significant at .029, which is less than the significance level of 5%). From the Unstandardized Coefficients of the Coefficient table, the prediction equation for All Sectors Taken Together can be developed as under:

 $Stock\ Price = 98.606 + 30.660\ DPS$ 

# CHAPTER 6 MANAGEMENT VIEWS ON DIVIDEND POLICY

## 6.1 INTRODUCTION

Dividend policy is an unsolved mystery in the field of corporate finance. A number of studies have been conducted regarding the factors that determine dividend decisions of companies as well as the effects of dividend policy on stock price. Even after decades of investigation, researchers still fail to agree on these aspects of dividend policy, at national and international level. This survey is conducted with the objective of measuring management views on dividend policy of firms listed in DSE.

### 6.2 REVIEW OF PREVIOUS SURVEY STUDIES

Lintner (1956) in his pioneering work on dividend policy interviewed managers of 28 enterprises and concluded that dividends are sticky, tied to long-term sustainable earnings, paid by mature enterprises, smoothed from year to year and targeted a long-term payout ratio when determining dividend policy.

Khurana (1985) investigated the corporate dividend policy in India mailing structured questionnaire to 215 enterprises. The survey reveals that dividend decisions are primarily governed by net profit and past dividend.

Baker and Powel (2000) surveyed the views of corporate managers of major US enterprises about the factors influencing dividend policy. They concluded that the most important determinants of an enterprise's dividend policy were the level of current and expected future earnings and the pattern of past dividends.

Shah (2009) surveyed the views of 60 financial executives on the practices of dividend policy of corporate enterprises in Nepal. The results revealed, among others, stability of earnings, level of current earnings and pattern of past dividends are three important factors in determining corporate dividend policy.

John (2013) surveyed the opinions of managers on the factors that influence dividend decisions in Nigerian listed firms. The result of the survey reveals that past dividend,

current earnings, financial leverage, alternative sources of capital ,liquidity, growth and investment opportunities have significant influence on dividend decisions.

Islam and Adnan (2018) made a questionnaire survey from financial decision makers of sample companies to analyze the determinants of dividend policy in the context of Bangladesh. The observed result reveals that present earnings and liquidity are the most likely factors for the firm in deciding the payout policy.

Rahman (2015) employed a practical survey on the perception of managers of twenty four companies to test the behavior of Bangladeshi listed firms towards dividend payout policy. Investigation of different dividend theories reveals that the bird-in- the-hand theory and the relevant value theory receive the highest support among the surveyed managers.

Although there are numerous studies on dividend policy using secondary data from developed and emerging capital markets, the survey studies are very limited. This survey study, however, aims to reconcile and incorporate the management views on dividend policy of firms listed in DSE with the findings of secondary data analysis.

# 6.3 COLLECTION OF SURVEY DATA

A structured questionnaire has been developed for collecting opinions of corporate personnel of the firms under study with a view to achieving two-fold objectives of the study. For collecting opinions on the determinants of corporate dividend policy, I prepared the questionnaire based on five-point Likert scale, where Not Important = 1, Less Important = 2, Moderately Important = 3, Important = 4, Very Important = 5. For collecting opinions regarding the impact of dividend policy on stock price, five-point Likert scale is also used, where Strongly Disagree = 1, Disagree = 2, Indifferent = 3, Agree = 4, Strongly Agree = 5.

Pilot Survey: Before preparing the final questionnaire, two pilot surveys have been conducted to test the validity and relevance of the questions. At first, I personally

surveyed to eight respondents and found some inconsistencies from their opinions. I revised the questionnaire and again surveyed to five respondents. Then, I prepared the final questionnaire for survey.

Final Survey: I e-mailed the survey questionnaire through Google form to the Chairman, Managing Director, Director, Chief Financial Officer (CFO) and Company Secretary of 61 listed companies. The mailing included a cover letter. But I did not find satisfactory response. Then, I went personally to the respondents of different firms. Finally, I received 162 respondent's opinions through questionnaire from all the eight sectors under study.

# 6.4 DATA ANALYSIS TECHNIQUES

Data have been analyzed through Cross-Tabulation Method using SPSS 29 and graphical presentation like bar chart.

# 6.5 DATA ANALYSIS AND FINDINGS

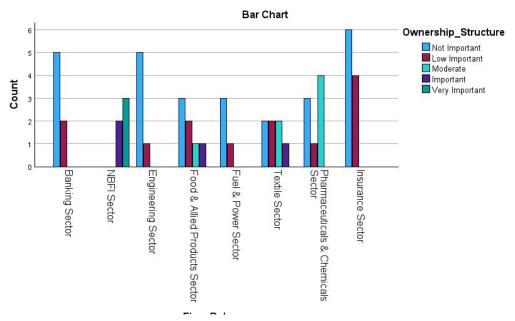
Data have been analyzed with a view to achieving two-fold objectives of the study. The cross-tabulation and bar chart have been used to analyze the opinions of the management of the firms regarding the factors that determine dividend decisions. Subsequently, the opinions of the management of the firms regarding impact of dividend on stock price of firms have been analyzed using the same techniques as well.

# **6.5.1 Factors Determining Dividend Decisions**

# 1. Ownership Structure

Table 6.1: Cross-Tabulation – Ownership Structure

	Firm_Belongs * Ownership_Structure Crosstabulation							
			Ownership_Structure					
		Not	Less	Moderately		Very		Mean
		Important	Important	Important	Important	Important	Total	
Firm_Belongs	Banking Sector	15	6	0	0	0	21	1.29
	NBFI Sector	0	0	0	6	9	15	4.60
	Engineering Sector	15	3	0	0	0	18	1.17
	Food & Allied Products Sector	9	6	3	3	0	21	2.00
	Fuel & Power Sector	9	3	0	0	0	12	1.25
	Textile Sector	6	6	6	3	0	21	2.29
	Pharmaceuticals & Chemicals Sector	9	3	12	0	0	18	2.13
	Insurance Sector	18	12	0	0	0	30	1.40
Total		81	39	21	12	9	162	2.01



**Graph 6.1: Ownership Structure** 

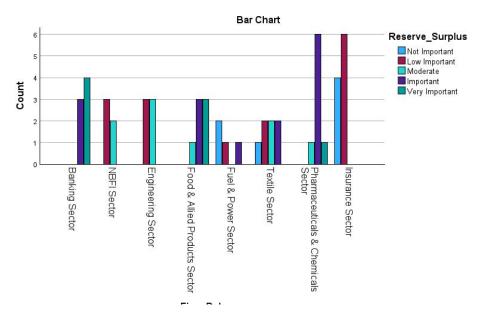
Table 6.1 shows the level of importance of ownership structure of firms to make dividend decisions of different sectors under study. It is evident that ownership structure of financial institutions sector has the highest mean value of 4.60 on the scale of 1 to 5. It indicates that ownership structure is one of the important factors that influence dividend

decisions of firms under financial institutions sector. The mean values of Textile, Pharmaceuticals & Chemicals, Food & Allied Product, Insurance, Banking, Fuel & Power and Engineering sectors are 2.29, 2.13, 2.00, 1.40, 1.29, 1.25 and 1.17 respectively. This implies that ownership structure is important in making dividend decisions for these sectors also. But the level of importance is low and differs from sector to sector. Overall mean value of all the sectors is 2.01, which means ownership structure has the low level of importance in making dividend decisions of firms listed in DSE. The sector-wise level of importance of ownership structure of firms to make dividend decisions is depicted in Graph 6.1.

# 2. Reserve & Surplus

**Table 6.2: Cross-Tabulation – Reserve & Surplus** 

	Firm_Belongs * Reserve & Surplus Crosstabulation								
			Reserve Surplus						
		Not	Less	Moderately		Very		Mean	
		Important Important Important Important Total							
Firm_Belongs	Banking Sector	0	0	0	9	12	21	4.57	
	NBFI Sector	0	9	6	0	0	15	2.40	
	Engineering Sector	0	9	9	0	0	18	2.50	
	Food & Allied Products Sector	0	0	3	9	9	21	4.29	
	Fuel & Power Sector	6	3	0	3	0	12	2.00	
	Textile Sector	3	6	6	6	0	21	2.71	
	Pharmaceuticals & Chemicals Sector	0	0	3	18	3	24	4.00	
	Insurance Sector 12 18 0 0 0 30						30	1.60	
Total		21	45	27	45	24	162	3.01	



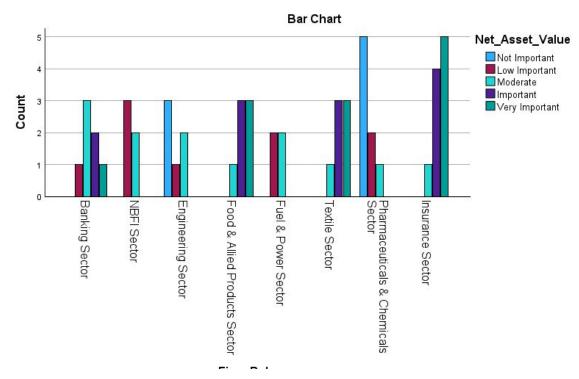
**Graph 6.2: Reserve & Surplus** 

Table 6.2 shows the level of importance of reserve & surplus of firms to make dividend decisions of different sectors under study. It is evident that reserve & surplus of Banking sector has the highest mean value of 4.57 on the scale of 1 to 5. The mean values of Food & Allied Product and Pharmaceuticals & Chemicals are 4.29 and 4.00 respectively. It indicates that reserve & surplus is one of the important factors that influence dividend decisions of firms under these sectors. The mean values of Textile, Engineering, Financial Institutions, Fuel & Power and Insurance sectors are 2.71, 2.50, 2.40, 2.00 and 1.60 respectively. This implies that reserve & surplus is important in making dividend decisions for these sectors also. But the level of importance is low and differs from sector to sector. Overall mean value of all the sectors is 3.01, which means reserve & surplus is moderately important in making dividend decisions of firms listed in DSE. The sectorwise level of importance of reserve & surplus of firms to make dividend decisions is depicted in Graph 6.2.

# 3. Net Asset Value per Share

Table 6.3: Cross-Tabulation – Net Asset Value per Share

	Firm_Belongs * Net_Asset_Value per Share Crosstabulation									
			Net Asset Value per Share							
		Not Important	I Important I Intal I M							
Firm_Belongs	Banking Sector	0	3	9	6	3	21	2.86		
	NBFI Sector	0	9	6	0	0	15	2.40		
	Engineering Sector	9	3	6	0	0	18	1.83		
	Food & Allied Products Sector	0	0	3	9	9	21	4.29		
	Fuel & Power Sector	0	6	6	0	0	12	2.50		
	Textile Sector	0	0	3	9	9	21	4.29		
	Pharmaceuticals & Chemicals Sector	15	6	3	0	0	24	1.50		
	Insurance Sector	0 0 3 12 15 30 4								
Total		24	27	39	36	36	162	3.06		



Graph 6.3: Net Asset Value per Share

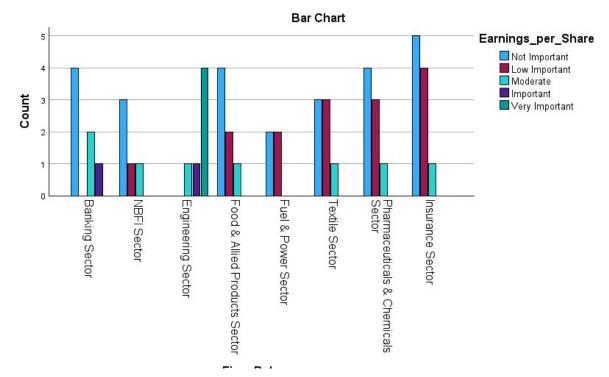
Table 6.3 shows the level of importance of net asset value per share of firms to make dividend decisions of different sectors under study. It is evident that net asset value per share of Insurance sector has the highest mean value of 4.80 on the scale of 1 to 5. The mean values of Food & Allied Product and Textile sector are same, which is 4.29. It indicates that net asset value per share is one of the important factors that influence dividend decisions of firms under these sectors. The mean values of Banking, Fuel &

Power, Financial Institutions, Engineering and Pharmaceuticals & Chemicals sectors are 2.86, 2.50, 2.40, 1.83 and 1.50 respectively. This implies that net asset value per share is important in making dividend decisions for these sectors also. But the level of importance is low and differs from sector to sector. Overall mean value of all the sectors is 3.06, which means net asset value per share is moderately important in making dividend decisions of firms listed in DSE. The sector-wise level of importance of net asset value per share of firms to make dividend decisions is depicted in Graph 6.3.

# 4. Earnings per Share

Table 6.4: Cross-Tabulation – Earnings per Share

	Firm_Bel	ongs * Earn	ings_per_Sl	nare Crossta	bulation			
				Earnings_	per_Share			
		Not	Less	Moderately		Very		
		Important	Important	Important	Important	Important	Total	Mean
Firm_Belongs	Banking Sector	12	0	6	3	0	21	2.00
	NBFI Sector	9	3	3	0	0	15	1.60
	Engineering Sector	0	0	3	3	12	18	4.50
	Food & Allied Products Sector	12	6	3	0	0	21	1.57
	Fuel & Power Sector	6	6	0	0	0	12	1.50
	Textile Sector	9	9	3	0	0	21	1.71
	Pharmaceuticals & Chemicals Sector	12	9	3	0	0	24	1.63
	Insurance Sector	15 12 3 0 0 30 1.6						
Total		75	45	24	6	12	162	2.01



**Graph 6.4: Earnings per Share** 

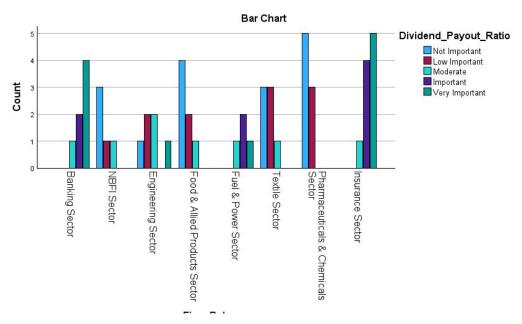
Table 6.4 shows the level of importance of earnings per share of firms to make dividend decisions of different sectors under study. It is evident that earnings per share of Engineering sector has the highest mean value of 4.50 on the scale of 1 to 5. It indicates

that earnings per share is one of the important factors that influence dividend decisions of firms under Engineering sector. The mean values of Banking, Textile, Pharmaceuticals & Chemicals, Financial Institutions, Insurance, Food & Allied Product and Fuel & Power sectors are 2.00, 1.71, 1.63, 1.60, 1.60, 1.57 and 1.50 respectively. This implies that earnings per share is important in making dividend decisions for these sectors also. But the level of importance is low and differs from sector to sector. Overall mean value of all the sectors is 2.01, which means earnings per share is Less Important in making dividend decisions of firms listed in DSE. The sector-wise level of importance of earnings per share of firms to make dividend decisions is depicted in Graph 6.4.

# 5. Dividend Payout Ratio

**Table 6.5: Cross-Tabulation – Dividend Payout Ratio** 

	Firm_Belongs * Dividend_Payout_Ratio Crosstabulation								
			Dividend_Payout_Ratio						
		Not	Less	Moderately		Very			
		Important	Important	Important	Important	Important	Total	Mean	
Firm_Belongs	Banking Sector	0	0	3	6	12	21	4.43	
	NBFI Sector	9	3	3	0	0	15	1.60	
	Engineering Sector	3	6	6	0	3	18	2.67	
	Food & Allied Products Sector	12	6	3	0	0	21	1.57	
	Fuel & Power Sector	0	0	3	6	3	12	4.00	
	Textile Sector	9	9	3	0	0	21	1.71	
	Pharmaceuticals & Chemicals Sector	15	9	0	0	0	24	1.38	
Insurance Sector         0         0         3         12         15         30							4.40		
Total		48	33	24	24	33	162	2.72	



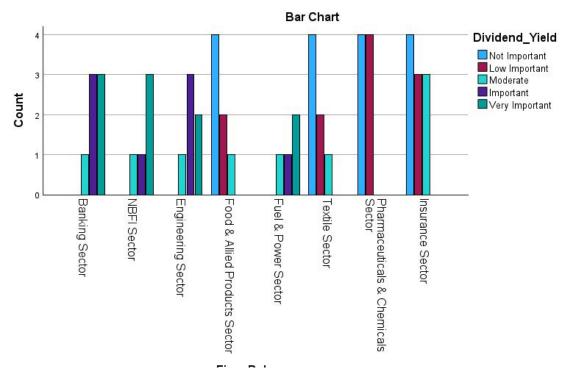
**Graph 6.5: Dividend Payout Ratio** 

Table 6.5 shows the level of importance of dividend payout ratio of firms to make dividend decisions of different sectors under study. It is evident that dividend payout ratio of Banking sector has the highest mean value of 4.43 on the scale of 1 to 5. The mean values of Fuel & Power and Insurance sectors are 4.40 and 4.00 respectively. It indicates that dividend payout ratio is one of the important factors that influence dividend decisions of firms under these sectors. The mean values of Engineering, Textile, Financial Institutions, Food & Allied Product and Pharmaceuticals & Chemicals sectors are 2.67, 1.71, 1.60, 1.57 and 1.38 respectively. This implies that dividend payout ratio is important in making dividend decisions for these sectors also. But the level of importance is low and differs from sector to sector. Overall mean value of all the sectors is 2.72, which means dividend payout ratio is Less Important in making dividend decisions of firms listed in DSE. The sector-wise level of importance of dividend payout ratio of firms to make dividend decisions is depicted in Graph 6.5.

# 6. Dividend Yield

Table 6.6: Cross-Tabulation – Dividend Yield

	Firm_l	Belongs * Di	vidend_Yiel	d Crosstabu	lation					
			Dividend Yield							
		Not	Not Less Moderately Very Mea							
		Important	Important	Important	Important	Important	Total			
Firm_Belongs	Banking Sector	0	0	3	9	9	21	4.29		
	NBFI Sector	0	0	3	3	9	15	4.40		
	Engineering Sector	0	0	3	9	6	18	4.17		
	Food & Allied Products Sector	12	6	3	0	0	21	1.57		
	Fuel & Power Sector	0	0	3	3	6	12	4.25		
	Textile Sector	12	6	3	0	0	21	1.57		
	Pharmaceuticals & Chemicals Sector	12	12	0	0	0	24	1.50		
	Insurance Sector	12 9 9 0 0 30								
Total		48	33	27	24	30	162	2.96		



**Graph 6.6: Dividend Yield** 

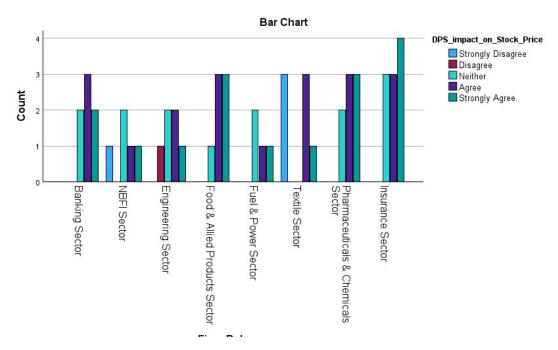
Table 6.6 shows the level of importance of dividend yield of firms to make dividend decisions of different sectors under study. It is evident that dividend yield of Financial Institutions sector has the highest mean value of 4.40 on the scale of 1 to 5. The mean

values of Banking and Engineering sectors are 4.29, 4.25 and 4.17 respectively. It indicates that dividend yield is one of the important factors that influence dividend decisions of firms under these sectors. The mean values of Insurance, Food & Allied Product, Textile and Pharmaceuticals & Chemicals sectors are 1.90, 1.57, 1.57 and 1.50 respectively. This implies that dividend yield is important in making dividend decisions for these sectors also. But the level of importance is low and differs from sector to sector. Overall mean value of all the sectors is 2.96, which means dividend yield is moderately important in making dividend decisions of firms listed in DSE. The sector-wise level of importance of dividend yield of firms to make dividend decisions is depicted in Graph 6.6.

# 6.5.2 Impact of Dividend on Stock Price

Table: 6.7 Cross-Tabulation - Impact of DPS on Stock Price

	Firm_Belongs *_In	npact_of DPS	on_Stock	Price Cross	stabulat	ion		
			DP	S_impact_or	_Stock	Price		
		Strongly				Strongly		
		Disagree	Disagree	Indifferent	Agree	Agree	Total	Mean
Firm_Belongs	Banking Sector	0	0	6	9	6	21	4.00
	NBFI Sector	3	0	6	3	3	15	3.20
	Engineering Sector	0	3	6	6	3	18	3.50
	Food & Allied Products Sector	0	0	3	9	9	21	4.29
	Fuel & Power Sector	0	0	6	3	3	12	3.75
	Textile Sector	9	0	0	9	3	21	2.86
	Pharmaceuticals & Chemicals Sector	0	0	6	9	9	24	4.13
	Insurance Sector	0	0	9	9	12	30	4.10
Total		12	3	42	57	48	162	3.73



**Graph: 6.7 Impact of Dividend on Stock Price** 

Table 6.7 shows the opinions of the management of firms regarding the level of agreement or disagreement about the impact of dividend on stock price. It reveals from the mean values of Food & Allied Product, Pharmaceuticals & Chemicals, Insurance and Banking are 4.29, 4.13, 4.10 and 4.00. It indicates that management of firms under these sectors agree on the impact of dividend on stock price of firms. The mean value of Fuel & Power, Engineering, Financial Institutions and Textile sectors are 3.75, 3.50, 3.20 and 2.86 respectively, which indicates that management of firms under these sectors neither agree nor disagree about the impact of dividend on stock price. That is, they are indifferent in opinions. Consequently, the survey provided a mixed result about the impact of dividend on stock price of the firms listed in DSE. The opinions of the management of firms regarding the level of agreement or disagreement about the impact of dividend on stock price are depicted in Graph 6.7.

# **6.6 CONCLUSION**

Management views on dividend policy of firms listed in DSE have been analyzed to identify the factors that influence dividend decisions as well as the impact of dividend on

stock price. The survey results reveal that same factors are not equally important in dividend decisions of firms under different sectors. That is, the level of importance of factors differs from sector to sector. Reserve & surplus, dividend payout ratio and divided yield are important factors in Banking sector; ownership structure and dividend yield are important in financial institution sector; earnings per shares and dividend yield are important in engineering sector; reserve and surplus and net asset value per share are important factors in food and allied product sector; dividend payout ratio and dividend yield are important in fuel and power sector; net asset value per share is important in textile sector; reserve and surplus is important in pharmaceuticals and chemical sector; net asset value per share and dividend payout ratio are important factors in insurance sector. These survey results are consistent with the findings of secondary data analysis.

The survey regarding the impact of dividend on stock price produced mixed results in line with the findings of secondary data analysis. The respondents from banking, food and allied product, pharmaceuticals & chemicals and insurance sectors agreed on the relevance of dividend on stock price, which supports relevance theory of Gordon (1963). On the other hand, the respondents from financial institutions, engineering, fuel & power and textile sectors disagreed or were indifferent in their opinions regarding the relevance of dividend on stock price, which supports irrelevance theory of Modigliani-Miller (1961).

# CHAPTER 7 FINDINGS, CONCLUSION & RECOMMENDATIONS

# 7.1 SOME HIGHLIGHTS OF THE STUDY

The study aims at analyzing the corporate dividend policy of firms in Bangladesh. The main objective of the study is to identify the determinants of corporate dividend policy followed in Bangladesh as well as to investigate the impact of dividend policy on stock price. Six specified objectives were designed to achieve the main objective of the study. The specified objectives are: (i) to highlight dividend policy of each sector; (ii) to identify the significant difference in dividend per share between intra-sector and inter-sector companies; (iii) to examine the relationship between dividend per share and parameters such as ownership structure, reserve & surplus, net asset value per share, earnings per share, dividend payout ratio, dividend yield and stock price; (iv) to investigate the impact of ownership structure, reserve & surplus, net asset value per share, earnings per share, dividend payout ratio and dividend yield on dividend per share (v) to investigate the impact of dividend per share on stock price and (vi) to measure management views on dividend policy of firms under the study. We used tables, graphs and charts to analyze dividend trends for highlighting dividend policy of each sector. Nine hypotheses in total were developed for eight sectors and we used one-way analysis of variance (ANOVA) to identify the significant difference in dividend per share between intra-sector and intersector companies. Seven hypotheses were also developed for each of the eight sectors and thus 56 hypotheses in total were tested using correlation to examine the relationship between dividend per share and parameters such as ownership structure, reserve & surplus, net asset value per share, earnings per share, dividend payout ratio, dividend yield and stock price. Backward elimination method of multiple regression was used to investigate the impact of ownership structure, reserve & surplus, net asset value per share, earnings per share, dividend payout ratio and dividend yield on dividend per share. Log transformed value of reserve & surplus is taken to make the regression model linear. Simple linear regression was also used to investigate the impact of dividend per share on stock price. Last of all, cross-tabulation and bar charts were used to measure management views on dividend policy of firms under the study.

# 7.2 FINDINGS OF THE STUDY

The study in general aims at analyzing the corporate dividend policy followed in Bangladesh. This study covers 61 companies from major eight sectors of Dhaka Stock Exchange. The period covered under the study extends over ten years from 2008 to 2017. The data were analyzed with the help of tables, graphs, charts and certain statistical tools like ANOVA, correlation, multiple regression as well as simple linear regression. The findings of the study are presented in the following sections.

# 7.2.1 Dividend Policy of Sample Companies

The first specified objective of the study is to highlight dividend policy of each sector under the study. With a view to achieving this objective, dividend per share, dividend trend and dividend payout ratio of each sample company from the eight selected sectors have been analyzed for ten years with the help of tables, graphs and charts. From the dividend data of 61 companies under eight major sectors of DSE for ten years, we have observed the dividend trend and explained the type of dividend policy of each sample company. It is found that no one company out of 12 in the Banking sector paid regular dividend every year and the average dividend per share of the sector is only Tk. 1.08, which is very low. So, Banking sector is not attractive for the investors from the view point of dividend per share. Only two companies out of seven from financial institutions sector paid regular dividend to their shareholders. Average dividend per share of the sector is only Tk. 1.59, which is not satisfactory for the shareholders. The average dividend per share of Engineering sector is Tk. 3.29. Only four out of seven sample companies paid regular dividend during the study period. In this sector Singer Bangladesh Limited pays good amount of dividend although it is very fluctuating. The average dividend of Food & Allied Product sector is Tk. 11.54, which is attractive for the investors. All the sample companies of the sector paid dividend every year during the study period of 10 years. The British American Tobacco pays very attractive dividend every year. The average dividend of the company is Tk. 48.10. The average dividend per share of Fuel & Power sector is Tk. 4.78. All the sample companies of the sector paid regular dividend to the shareholders. Textile sector is not so attractive for the investors. The average dividend per share of the sector is only Tk. 1.48. Three out of eight sample companies paid regular dividend during the study period. Pharmaceuticals & Chemicals sector is the most attractive for the investors. The average dividend per share is Tk. 14.68, which is the highest out of eight selected sectors. Reckitt Benckiser (Bangladesh) and GlaxoSmithKline (GSK) paid very attractive dividend to their shareholders, which are on an average Tk. 46.95 and Tk. 30.40 respectively. The lowest average dividend per share is paid by the companies of Insurance sector, which is only Tk. 1.00. Two out of eleven sample companies paid regular dividend to their shareholders. This sector is not attractive to the investors from the point of view of dividend per share. It can be concluded from the study that Pharmaceuticals & Chemicals sector may be the most attractive sector for investment. Banking, Financial Institutions and Insurance sector are at bottom of the list to invest.

From the point of view of dividend payout ratio, Engineering sector is in the first position, whereas Financial Institutions sector is in the eighth position. The average dividend payout ratio of Engineering sector and Financial Institutions sector are 76.28% and 35.90% respectively. The average dividend payout ratio of Pharmaceuticals & Chemicals, Textile, Fuel & Power, Insurance, Food & Allied Product and Banking sectors are 62.51%, 58.51%, 47.02%, 44.83%, 39.73% and 36.63% respectively. No one company out of 61 sample companies follows constant dividend payout ratio policy.

Types of dividend policy found out from the empirical study are presented in Table 7.1.

**Table 7.1: Types of Dividend Policy** 

Sector	Company	Dividend Policy		
	13. AB Bank Ltd.	Irregular Dividend Policy		
	14. Islami Bank Bd Ltd.	Low-Regular-and-Extra Dividend Policy		
	15. Pubali Bank Ltd.	Low-Regular-and-Extra Dividend Policy		
1. Banks	16. Uttara Bank Ltd.	Constant Dividend per Share Policy		
	17. Eastern Bank Ltd.	Constant Dividend per Share Policy		
	18. Prime Bank Ltd.	Low-Regular-and-Extra Dividend Policy		
	19. Southeast Bank Ltd.	Low-Regular-and-Extra Dividend Policy		

	20. Dhaka Bank Ltd.	Irregular Dividend Policy
	21. Social Islami Bank Ltd.	Irregular Dividend Policy
	22. Dutch-Bangla Bank Ltd.	Generous Dividend Policy
	23. One Bank Ltd.	Multiple Dividend Increase Policy
	24. Mercantile Bank Ltd.	Multiple Dividend Increase Policy
	8. IDLC Finance Limited	Erratic Dividend Policy
	9. United Finance Limited	Managed Dividend Policy
	10. Uttara Finance and	Irregular Dividend Policy
	Investments	
2. Financial	11. LankaBangla Finance	Irregular Dividend Policy
Institutions	Ltd.	
	12. Phoenix Finance	Constant Dividend per Share Policy
	13. ICB	Generous Dividend Policy
	14. Delta Brac Housing Fin.	Low-Regular-and-Extra Dividend
	Corp. Ltd.	Policy
	8. Aftab Automobiles	Low-Regular-and-Extra Dividend
	Limited	Policy
	9. Bangladesh Lamps	Low-Regular-and-Extra Dividend
	Limited	Policy
	10. Eastern Cables Ltd.	Constant Dividend per Share Policy
2	11. Monno Jute Stafflers	Irregular Dividend Policy
3.	Ltd.	
Engineering	12. Singer Bangladesh Ltd.	Erratic Dividend Policy
	13. Rangpur Foundry Ltd.	Managed Dividend Policy
	14. S. Alam Cold Rolled	Managed Dividend Policy
	Steels Ltd.	
	6. Olympic Industries	Multiple Dividend Increase Policy
	Limited	
4.77	7. Apex Foods Limited	Constant Dividend per Share Policy
4. Food &	8. British American	Generous Dividend Policy
Allied	Tobacco Bangladesh	
Product	9. National Tea Company	Managed Dividend Policy
	Limited	
	10. Agricultural Marketing Co. (Pran)	Constant Dividend per Share Policy
	Eastern Lubricant Ltd.	Constant Dividend per Share Policy
	2. Dhaka Electric Supply	Low-Regular-and-Extra Dividend
5. Fuel &	Company	Policy
Power		
	3. Jamuna Oil Com. Ltd.	Generous Dividend Policy
	4. Meghna Petroleum Ltd.	Generous Dividend Policy

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6. Textile	9. Stylecraft Limited	Erratic Dividend Policy

	10. Rahim Textile Mills Ltd.	Irregular Dividend Policy
	11. Saiham Textile Mills Ltd.	Irregular Dividend Policy
	12. Desh Garments Ltd.	Irregular Dividend Policy
	13. Apex Spinning & Knitting Mills	Low-Regular-and-Extra Dividend Policy
	14. Prime Textile Spinning Mills	Constant Dividend per Share Policy
	15. H.R. Textile Ltd.	Managed Dividend Policy
	16. Square Textiles Limited	Low-Regular-and-Extra Dividend Policy
	8. Ambee Pharmaceuticals Ltd.	Managed Dividend Policy
	9. GlaxoSmithKline (GSK) Bangladesh	Generous Dividend Policy
7. Pharmaceutic	10. ACI Limited	Low-Regular-and-Extra Dividend Policy
als and Chemicals	11. Reneta Ltd.	Low-Regular-and-Extra Dividend Policy
Cnemicals	12. Reckitt Benckiser (Bangladesh)	Generous Dividend Policy
	13. The IBN SINA Pharmaceutical	Managed Dividend Policy
	14. ACI Formulations Ltd.	Managed Dividend Policy
	12. Bangladesh General Insurance	Irregular Dividend Policy
	13. Green Delta Insurance	Irregular Dividend Policy
	14. United Insurance Company	Low-Regular-and-Extra Dividend Policy
	15. Peoples Insurance Company	Irregular Dividend Policy
	16. Easter Insurance Co. Ltd.	Constant Dividend per Share Policy
	17. Phoenix Insurance Company	Irregular Dividend Policy
8. Insurance	18. Karnaphuli Insurance Co. Ltd.	Irregular Dividend Policy
	19. Pragati Insurance Ltd.	Low-Regular-and-Extra Dividend Policy
	20. Pioneer Insurance Company	Irregular Dividend Policy
	21. Asia Pacific General Insurance	Irregular Dividend Policy
	22. Continental Insurance Ltd.	Irregular Dividend Policy
•	•	•

# 7.2.2 Analysis of Variance (ANOVA)

One of the specified objectives of the study is to identify significant difference in dividend per share between intra-sector as well as inter-sector companies. In other words, the study is carried out to know whether there is any statistically significant difference in dividend per share between sample companies of a particular sector and also between selected sectors. One-way ANOVA test was run to get the results.

It is found that there is a significant difference in dividend per share between companies from every sector under the study as well as between inter-sector companies. The results of ANOVA test for the study are presented in Table 7.2.

**Table 7.2: Findings of ANOVA** 

No.	Null Hypotheses	Decision
1.	H <sub>0</sub> : There is no significant difference in Dividend per Share	Rejected
	between selected Banking Companies.	
2.	H <sub>0</sub> : There is no significant difference in Dividend per Share	Rejected
	between selected Financial Institutions.	
3.	H <sub>0</sub> : There is no significant difference in Dividend per Share	Rejected
	between selected Engineering Companies.	
4.	H <sub>0</sub> : There is no significant difference in Dividend per Share	Rejected
	between selected Food & Allied Products Companies.	
5.	H <sub>0</sub> : There is no significant difference in Dividend per Share	Rejected
	between selected Fuel & Power Companies.	
6.	H <sub>0</sub> : There is no significant difference in Dividend per Share	Rejected
	between selected Textile Companies.	
7.	H <sub>0</sub> : There is no significant difference in Dividend per Share	Rejected
	between selected Pharmaceuticals & Chemicals Companies.	
8.	H <sub>0</sub> : There is no significant difference in Dividend per Share	Rejected

Ī		between selected Insurance Companies.					
	9.	H <sub>0</sub> : There is no significant difference in Dividend per Share	Rejected				
		between Companies of all sectors taken under study.					

Figure 7.1 provides the summary of the findings, so that one can easily understand the findings of the study.

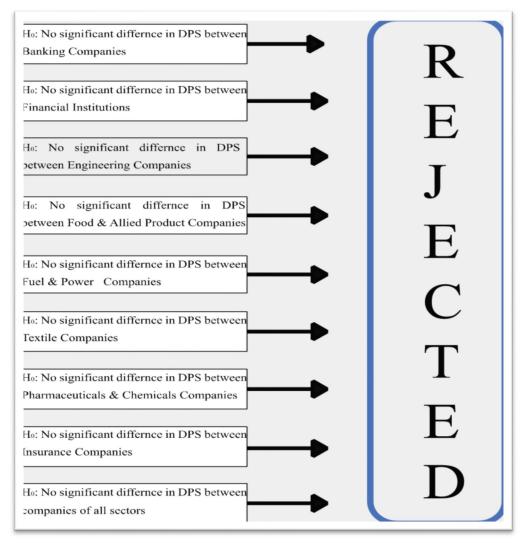


Figure 7.1: Summary of Findings of ANOVA

# 7.2.3 Correlation Test

One of the specified objectives of the study is to examine the relationship between dividend per share and certain variables like ownership structure, reserve & surplus, net asset value per share, earnings per share, dividend payout ratio, dividend yield and stock price. For this purpose, we have checked the association between dividend per share and aforementioned variables with the help of Pearson correlation test. When we have examined the relationship between DPS and variables for the sample companies, it is found that there is a significant relationship between DPS and variables for some companies and no significant relationship between DPS and variables for the other companies. Thus, we get mixed results for the association between DPS and aforementioned variables with the help of correlation test. Findings of correlation and summary of the findings are presented in Table 7.3 and Table 7.4 respectively.

**Table 7.3: Findings of Correlation** 

No.	Null Hypotheses	Decision
1.	H <sub>0</sub> : There is no correlation between Dividend per Share	Rejected
	and Ownership Structure of Banking Companies.	
2.	H <sub>0</sub> : There is no correlation between Dividend per Share	Rejected
	and Reserve & Surplus of Banking Companies.	
3.	H <sub>0</sub> : There is no correlation between Dividend per Share	Rejected
	and Net Asset Value per Share of Banking Companies.	
4.	H <sub>0</sub> : There is no correlation between Dividend per Share	Accepted
	and Earnings per Share of Banking Companies.	
5.	H <sub>0</sub> : There is no correlation between Dividend per Share	Accepted
	and Dividend Payout Ratio of Banking Companies.	
6.	H <sub>0</sub> : There is no correlation between Dividend per Share	Rejected
	and Dividend Yield of Banking Companies.	
7.	H <sub>0</sub> : There is no correlation between Dividend per Share	Rejected
	and Stock Price of Banking Companies.	
8.	H <sub>0</sub> : There is no correlation between Dividend per Share	Rejected
	and Ownership Structure of Financial Institutions.	
9.	H <sub>0</sub> : There is no correlation between Dividend per Share	Accepted
	and Reserve & Surplus of Financial Institutions.	

	and Reserve & Surplus of Food & Allied Product	
23.	H <sub>0</sub> : There is no correlation between Dividend per Share	Rejected
	Companies.	
	and Ownership Structure of Food & Allied Product	
22.	H <sub>0</sub> : There is no correlation between Dividend per Share	Accepted
	and Stock Price of Engineering Companies.	
21.	H <sub>0</sub> : There is no correlation between Dividend per Share	Accepted
	and Dividend Yield of Engineering Companies.	
20.	H <sub>0</sub> : There is no correlation between Dividend per Share	Rejected
	and Dividend Payout Ratio of Engineering Companies.	
19.	H <sub>0</sub> : There is no correlation between Dividend per Share	Rejected
	and Earnings per Share of Engineering Companies.	
18.	H <sub>0</sub> : There is no correlation between Dividend per Share	Accepted
	and Net Asset Value per Share of Engineering Companies.	
17.	H <sub>0</sub> : There is no correlation between Dividend per Share	Rejected
	and Reserve & Surplus of Engineering Companies.	
16.	H <sub>0</sub> : There is no correlation between Dividend per Share	Accepted
	and Ownership Structure of Engineering Companies.	
15.	H <sub>0</sub> : There is no correlation between Dividend per Share	Accepted
	and Stock Price of Financial Institutions.	
14.	H <sub>0</sub> : There is no correlation between Dividend per Share	Accepted
	and Dividend Yield of Financial Institutions.	
13.	H <sub>0</sub> : There is no correlation between Dividend per Share	Rejected
	and Dividend Payout Ratio of Financial Institutions.	
12.	H <sub>0</sub> : There is no correlation between Dividend per Share	Rejected
	and Earnings per Share of Financial Institutions.	
11.	H <sub>0</sub> : There is no correlation between Dividend per Share	Rejected
	and Net Asset Value per Share of Financial Institutions.	
10.	H <sub>0</sub> : There is no correlation between Dividend per Share	Accepted

	Companies.	
24.	H <sub>0</sub> : There is no correlation between Dividend per Share	Rejected
	and Net Asset Value per Share of Food & Allied Product	
	Companies.	
25.	H <sub>0</sub> : There is no correlation between Dividend per Share	Rejected
	and Earnings per Share of Food & Allied Product	
	Companies.	
26.	H <sub>0</sub> : There is no correlation between Dividend per Share and	Accepted
	Dividend Payout Ratio of Food & Allied Product Companies.	
27.	H <sub>0</sub> : There is no correlation between Dividend per Share	Accepted
	and Dividend Yield of Food & Allied Products	
	Companies.	
28.	H <sub>0</sub> : There is no correlation between Dividend per Share	Rejected
	and Stock Price of Food & Allied Product Companies.	
29.	H <sub>0</sub> : There is no correlation between Dividend per Share	Rejected
	and Ownership Structure of Fuel & Power Companies.	
30.	H <sub>0</sub> : There is no correlation between Dividend per Share	Rejected
	and Reserve & Surplus of Fuel & Power Companies.	
31.	H <sub>0</sub> : There is no correlation between Dividend per Share	Rejected
	and Net Asset Value per Share of Fuel & Power	
	Companies.	
32.	H <sub>0</sub> : There is no correlation between Dividend per Share	Rejected
	and Earnings per Share of Fuel & Power Companies.	
33.	H <sub>0</sub> : There is no correlation between Dividend per Share	Rejected
	and Dividend Payout Ratio of Fuel & Power Companies.	
34.	H <sub>0</sub> : There is no correlation between Dividend per Share	Rejected
	and Dividend Yield of Fuel & Power Companies.	
35.	H <sub>0</sub> : There is no correlation between Dividend per Share	Accepted
	and Stock Price of Fuel & Power Companies.	
36.	H <sub>0</sub> : There is no correlation between Dividend per Share	Accepted

	and Dividend Yield of Pharmaceuticals & Chemicals	1
48.	H <sub>0</sub> : There is no correlation between Dividend per Share	Accepted
	Chemicals Companies.	
	and Dividend Payout Ratio of Pharmaceuticals &	
47.	H <sub>0</sub> : There is no correlation between Dividend per Share	Accepted
	Companies.	
	and Earnings per Share of Pharmaceuticals & Chemicals	
46.	H <sub>0</sub> : There is no correlation between Dividend per Share	Rejected
	Chemicals Companies.	
	and Net Asset Value per Share of Pharmaceuticals &	
45.	H <sub>0</sub> : There is no correlation between Dividend per Share	Rejected
	Companies.	
	and Reserve & Surplus of Pharmaceuticals & Chemicals	<b>.</b>
44.	H <sub>0</sub> : There is no correlation between Dividend per Share	Rejected
	Companies.	
	and Ownership Structure of Pharmaceuticals & Chemicals	recopica
43.	H <sub>0</sub> : There is no correlation between Dividend per Share	Accepted
12.	and Stock Price of Textile Companies.	riccepicu
42.	H <sub>0</sub> : There is no correlation between Dividend per Share	Accepted
71.	and Dividend Yield of Textile Companies.	Accepted
41.	H <sub>0</sub> : There is no correlation between Dividend per Share	Accepted
40.	and Dividend Payout Ratio of Textile Companies.	Accepted
40.	and Earnings per Share of Textile Companies.  H <sub>0</sub> : There is no correlation between Dividend per Share	Aggentad
39.	H <sub>0</sub> : There is no correlation between Dividend per Share	Rejected
20	and Net Asset Value per Share of Textile Companies.	D : 4 1
38.	H <sub>0</sub> : There is no correlation between Dividend per Share	Rejected
20	and Reserve & Surplus of Textile Companies.	
37.	H <sub>0</sub> : There is no correlation between Dividend per Share	Accepted
	and Ownership Structure of Textile Companies.	_

	Companies.				
49.	H <sub>0</sub> : There is no correlation between Dividend per Share and Stock Price of Pharmaceuticals & Chemicals				
	Companies.				
50.	H <sub>0</sub> : There is no correlation between Dividend per Share and Ownership Structure of Insurance Companies.				
51.	H <sub>0</sub> : There is no correlation between Dividend per Share and Reserve & Surplus of Insurance Companies.				
52.	H <sub>0</sub> : There is no correlation between Dividend per Share and Net Asset Value per Share of Insurance Companies.	Rejected			
53.	H <sub>0</sub> : There is no correlation between Dividend per Share and Earnings per Share of Insurance Companies.	Accepted			

54.	H <sub>0</sub> : There is no correlation between Dividend per Share	Rejected
	and Dividend Payout Ratio of Insurance Companies.	
55.	H <sub>0</sub> : There is no correlation between Dividend per Share	Rejected
	and Dividend Yield of Insurance Companies.	
56.	H <sub>0</sub> : There is no correlation between Dividend per Share	Rejected
	and Stock Price of Insurance Companies.	

**Table 7.4: Summary Results of Correlation** 

	ACCEPT/REJECT							
$H_0$	Banks	Financial Institutions	Engineering	Food & Allied Product	Fuel & Power	Textile	Pharmaceuticals & Chemicals	Insurance
No relationship between DPS and OS	Reject	Reject	Accept	Accept	Reject	Accept	Accept	Accept
No relationship between DPS and R&S	Reject	Accept	Accept	Reject	Reject	Accept	Reject	Reject
No relationship between DPS and NAVPS	Reject	Accept	Reject	Reject	Reject	Reject	Reject	Reject
No relationship between DPS and	Accept	Reject	Accept	Reject	Reject	Reject	Reject	Accept

EPS								
No relationship between DPS and DPR	Accept	Reject	Reject	Accept	Reject	Accept	Accept	Reject
No relationship between DPS and DY	Reject	Reject	Reject	Accept	Reject	Accept	Accept	Reject
No relationship between DPS and SP	Reject	Accept	Accept	Reject	Accept	Accept	Reject	Reject

It is found from the correlation test that dividend per share and ownership structure has a high degree of positive correlation in Banking sector at 5% level of significance and in Financial Institutions sector at 1% level of significance. Again, dividend per share and ownership structure of Fuel & Power sector has a high degree of negative correlation at 1% level of significance. On the other hand, dividend per share and ownership structure of Engineering, Food & Allied Product, Textile, Pharmaceuticals & Chemicals and Insurance sectors has no significant relationship.

There is a high degree of positive correlation between dividend per share and reserve & surplus in Banking, Food & Allied Product, Fuel & Power, Pharmaceuticals & Chemicals and Insurance sectors at 1% level of significance. On the other hand, there is no significant relationship between dividend per share and reserve & surplus of Financial Institutions, Engineering and Textile sectors.

There is a high degree of positive correlation between dividend per share and net asset value per share in Banking, Food & Allied Product, Fuel & Power, Textile, Pharmaceuticals & Chemicals and Insurance sectors at 1% level of significance and in Engineering sector at 5% level of significance. On the other hand, there is no significant relationship between dividend per share and net asset value per share of Financial Institutions sector.

There is a high degree of positive correlation between dividend per share and earnings per share in Food & Allied Product, Fuel & Power and Pharmaceuticals & Chemicals sectors at 1% level of significance and in Financial Institutions and Textile sectors at 5%

level of significance. On the other hand, there is no significant relationship between dividend per share and earnings per share of Banking, Engineering and Insurance sectors.

There is a high degree of positive correlation between dividend per share and dividend payout ratio in Financial Institutions, Fuel & Power and Insurance sectors at 1% level of significance and in Engineering sector at 5% level of significance. On the other hand, there is no significant relationship between dividend per share and dividend payout ratio of Banking, Food & Allied Product, Textile and Pharmaceuticals & Chemicals sectors.

There is a high degree of positive correlation between dividend per share and dividend yield in Banking, Financial Institutions, Engineering, Fuel & Power and Insurance sectors at 1% level of significance. On the other hand, there is no significant relationship between dividend per share and dividend yield of Food & Allied Product, Textile and Pharmaceuticals & Chemicals sectors.

There is a high degree of positive correlation between dividend per share and stock price in Food & Allied Product and Pharmaceuticals & Chemicals sectors at 1% level of significance. Again, there is a high degree of negative correlation between dividend per share and stock price in Banking and Insurance sectors at 1% level of significance. On the other hand, there is no significant relationship between dividend per share and stock price of Financial Institutions, Engineering, Fuel & Power and Textile sectors.

# 7.2.4 Regression Analysis

To achieve main objectives of the study, we have used both multiple regression and simple linear regression. At first, multiple regression is used to investigate the impact of six explanatory variables (ownership structure, reserve & surplus, net asset value per share, earnings per share, dividend payout ratio and dividend yield) on dividend per share with a view to identifying the determinants of corporate dividend policy followed in Bangladesh. Subsequently, simple linear regression is used to investigate the impact of dividend per share on stock price of each sector under the study.

# 7.2.4.1 Multiple Regression Analysis

The multiple regression analysis has been utilized in the study where DPS is taken as dependent variable and ownership structure, log transformed value of reserve & surplus, net asset value per share, earnings per share, dividend payout ratio and dividend yield are taken as independent variables. Table 7.5 shows the prediction equations derived from multiple regression analysis.

**Table 7.5: Prediction Equations of Multiple Regression** 

No.	Sectors	Prediction Equations
1.	Banking	DPS = -3.074 + .418 LN(R&S) + .024 NAVPS084 EPS
		007 DPR + .101 DY
2.	Financial Institutions	DPS = 1.173 + .067 OS483 LN(R&S) + .003 NAVPS
		+ .388 DY
3.	Engineering	DPS = -6.179 + 1.077 EPS + 2.344 DY
4.	Food & Allied Product	DPS = 3.571 + .364 EPS
5.	Fuel & Power	DPS =501 + .054 DPR + 1.156 DY
6.	Textile	DPS = .585 + .014 NAVPS
7.	Pharmaceuticals &	DPS = -34.704 + 5.243 LN(R&S) + .435 EPS
	Chemicals	
8.	Insurance	DPS =587 + .041  NAVPS + .009  DPR
9.	All Sectors Together	DPS = -9.950 + .160 OS + .264 EPS + .080 DPR

The results show that log transformed value of reserve & surplus, net asset value per share and dividend yield have significant positive impact on dividend per share in Banking sector. On the other hand, earnings per share and dividend payout ratio have significant negative impact on dividend per share. In Financial Institutions sector, ownership structure, net asset value per share and dividend yield have significant positive impact while log transformed value of reserve & surplus has negative impact on dividend per share. Earnings per share and dividend yield of Engineering sector have significant positive impact on dividend per share. In Food & Allied Product sector, earnings per share has significant positive impact on dividend per share. In Fuel & Power sector, dividend payout ratio and dividend yield have significant positive impact on dividend per share. Net asset value per share of Textile sector has significant positive impact on dividend per share. Log transformed value of reserve & surplus and earnings per share of Pharmaceuticals & Chemicals sector have positive impact on dividend per share. Net asset value per share and dividend payout ratio have significant positive impact on

dividend per share of Insurance sector. Furthermore, multiple regression results of all the sectors taken together show significant positive impact of ownership structure, earnings per share and dividend payout ratio on dividend per share. In another way, ownership structure has positive impact on dividend per share in Financial Institutions sector. Log transformed value of reserve & surplus has positive impact on dividend per share in Pharmaceuticals & Chemicals sector, but negative impact in Financial Institutions sector. Net asset value per share has positive impact on dividend per share in Banking, Financial Institutions, Textile and Insurance sectors. Earnings per share has positive impact on dividend per share in Engineering, Food & Allied Product and Pharmaceuticals & Chemicals sectors, but negative impact in Banking sector. Dividend payout ratio has positive impact on dividend per share in Fuel & Power and Insurance sectors, but negative impact in Banking sector. Last of all, dividend yield has a positive impact on dividend per share in Banking, Financial Institutions, Engineering and Fuel & Power sectors. Overall, ownership structure, log transformed value of reserve & surplus, net asset value per share, earnings per share, dividend payout ratio and dividend yield have significant positive or negative impact on dividend per share of one or more of the selected sectors under study. These findings support the studies of Likitwongkajon (2019), Tanjung (2017), Gupta (2017), Chesini and Staniszewska (2017), Martin Reyna (2017), Oloidi and Adeyeye (2014), Michaely and Roberts (2011), Huda and Farah (2011), Denis and Osovob (2008), Al-Twaijry (2007), Imam and Malik (2007), Adaoglu (2000) and many others. Management views on dividend policy of firms listed in DSE have also been analyzed to identify the factors that influence dividend decisions. The survey results reveal that same factors are not equally important in dividend decisions of firms under different sectors, which is consistent with the findings of secondary data analysis. Consequently, the major determinants of dividend policy of firms listed in DSE are earnings per share, net asset value per share, dividend payout ratio, dividend yield, reserve & surplus and ownership structure.

## 7.2.4.2 Simple Linear Regression

The simple linear regression has been run taking stock price as dependent variable and dividend per share as independent variable, so that we can have prediction equation for stock price at a given level of dividend per share. This can be helpful to the management and equity investors of companies to predict stock price in the market for the declared dividend.

The summary table for the prediction equation of each of the selected sectors as well as all sectors taken together is shown in Table 7.6.

**Table 7.6: Prediction Equations of Simple Linear Regression** 

No.	Sectors	Prediction Equations
1.	Banking	Stock Price = 100.447 - 49.946 DPS
2.	Financial	No Significant Relationship between DPS and Stock
	Institutions	Price
3.	Engineering	No Significant Relationship between DPS and Stock
		Price
4.	Food & Allied	Stock Price = $-363.226 + 84.977$ DPS
	Product	
5.	Fuel & Power	No Significant Relationship between DPS and Stock
		Price
6.	Textile	No Significant Relationship between DPS and Stock
		Price
7.	Pharmaceuticals &	Stock Price = 313.562 + 23.418 DPS
	Chemicals	
8.	Insurance	Stock Price = 162.163 – 108.212 DPS
9.	All Sectors	Stock Price = 98.606 + 30.660 DPS
	Together	

The results of simple linear regression show that Banking, Food & Allied Product, Pharmaceuticals & Chemicals and Insurance sectors have significant impact of DPS on Stock Price, which supports the Relevance Theory of dividend, i.e., Walter's model and Gordon's model. Studies conducted by Golder, Akter and Sheikh (2019), Islam (2019), Bajaja and Jain (2019), Zainudin, Mahdzan and Yet (2018), Prabhakaran and Karthika (2018), Banerjee (2018), Ahmed (2018), Joshi and Mayur (2017), Memon, Channa and Khoso (2017), Velankar, Chandani and Ahuja (2017), Warrad (2017), Misir and Khandoker (2017), Ngo and Cuong (2016), Priya and Mohanasundari (2016), Sharif, Ali and Jan (2015), Balagobei and Selvaratman (2015), Rahman (2015), Islam, Humyra and Sultana (2015), Masum (2014), Al-Hasan, Asaduzzaman and al Karim (2013),

Dharmarathne (2013), Gupta, Dogra, Vashisht and Ghai (2012), Suwanna (2012), Hussainery, Zakaria, Muhammad and Zulkifli (2012), Hasan, Akhter and Huda (2012), Mgbame and Chijoke-Mgbame (2011), Zaman (2011), Misir (2010), Uddin (2009), Yilmaz and Gulay (2006), Baker, Veit and Powell (2001), Travlos, Trigeorgis and Vafeas (2001), Ahmed (2000), Richardson, Sefcik and Thompson (1986) and Ariff and Finn (1989) are among those who empirically proved that dividend has an impact on the stock price of the firm. On the other hand, it is found that there is no significant impact of DPS on stock price of Financial Institutions, Engineering, Fuel & Power and Textile sectors, which supports Irrelevance Theory of dividend, i.e., MM Hypothesis. Sevedimany (2019), Vavilina, Levanova and Tkahenko (2019), Alaeto (2018), Dedunu (2018), Tharshiga and Velnamby (2017), Balakrishnam (2016), Geetha and Swaaminathan (2015), Uddin and Uddin (2014), Dhungel (2013), Ali and Chowdhury (2010), Rahman and Rahman (2008), Uddin and Chowdhury (2005), Allen and Rahim (1996), Miller and Sholes (1982), Miller and Sholes (1978), Srivastava (1968) are among those who empirically showed that there is no relevance of dividend to stock price in line with Miller and Modigliani (1961). Management views on dividend policy of firms listed in DSE have been analyzed to identify the impact of dividend on stock price. The survey regarding the impact of dividend on stock price produced mixed results in line with the findings of secondary data analysis. However, the findings of simple linear regression of all sample companies from all the sectors under the study taken together show that there is a significant positive impact of dividend policy on the stock price.

## i. Management Views on Dividend Policy

The survey regarding management views on the factors determining dividend policy reveals that same factors are not equally important in dividend decisions of firms under different sectors. That is, level of importance of factors differs from sector to sector. Again, the survey regarding the impact of dividend on stock price produced mixed results among different sectors. These survey results are consistent with the findings of secondary data analysis.

#### b. CONTRIBUTION OF THE STUDY

The present study is expected to have significant contributions towards the overall development of emerging capital markets like Bangladesh. The analysis and interpretation of dividend data have provided some useful insights regarding dividend trend and dividend policy of firms listed in DSE. This will be helpful for the equity investors, policy makers and other stakeholders of corporate sectors in Bangladesh to take informed decisions.

This study extends empirical evidence on the determinants of corporate dividend policy followed in Bangladesh, which are currently reported to be inconclusive. The determinants of dividend policy vary from market to market. Besides, different authors have used different combinations of variables for identifying the determinants of corporate dividend policy. In this study, company-specific factors are considered to identify the determinants of dividend policy. The study is done separately for eight major sectors of DSE and it is found that same factors are not equally important in dividend decisions of firms under different sectors. The management of the listed companies will be cognizant of the determinants of corporate dividend policy followed in Bangladesh.

The study also contributes to the existing literature on the impact of dividend policy on stock price in at least two ways. Firstly, it focuses on firms listed in DSE while a very limited research has been conducted on such firms till now. Secondly, this study validates some of the findings of previous authors in the same area of study at home and abroad. Thus, this study adds substance to the most conflicting theories of dividend policy – The Relevance Theory and The Irrelevance Theory. Moreover, the findings of the study (Dividend per Share has significant effect on Stock Price of firms listed on DSE in most of the cases) will foster awareness of company management regarding dividend decisions.

#### 7.4 CONCLUSION

The main objective of the study is to identify the determinants of corporate dividend policy in Bangladesh and to investigate the impact of dividend policy on stock price. Six specified objectives have designed for achieving the main objective of the study. For achieving the first specified objective of highlighting dividend policy of each sector under the study, we have used tables and graphs of dividend per share and dividend payout ratio of each sample company of the eight selected sectors to analyze and interpret dividend trend and dividend policy of each company. Total 61 companies from eight sectors have been studied to find out the dividend policy of each company. The result is mixed regarding the type of dividend policy followed by the companies under different sectors. Even the companies from the same sector do not have similar dividend trend and dividend policy.

The study also examined the variables determining dividend per share of the firms of selected eight sectors listed in DSE. Six determinants (Ownership Structure, Log transformed value of Reserve & Surplus, Net Asset Value per Share, Earnings per Share, Dividend Payout Ratio and Dividend Yield) have been employed and Backward Elimination method of Multiple Regression has been used. The study identified earnings per share, net asset value per share, dividend payout ratio, dividend yield, reserve & surplus and ownership structure as six major determinants of corporate dividend policy followed in Bangladesh. The findings are useful to the board of directors and corporate managers in deciding an appropriate dividend policy for the company.

The findings of the impact of dividend per share on stock price of companies of eight selected sectors produced mixed results. The results are very interesting as four sectors (Banking, Food & Allied Product, Pharmaceuticals & Chemicals and Insurance) out of eight have significant impact of dividend per share on stock price that supports Relevance Theory of dividend while the other four sectors (Financial Institutions, Engineering, Fuel & Power and Textile) have no significant impact of dividend per share on stock price that

supports Irrelevance Theory of dividend. The survey regarding the impact of dividend on stock price produced mixed results in line with the findings of secondary data analysis. Thus, the impact of dividend on stock price has still remained a controversial issue. However, firms from all the sectors taken together have significant positive impact of dividend per share on stock price of firms. The findings of the study will be helpful to the equity investors, corporate managers and other stakeholders of the capital market in Bangladesh.

#### 7.5 RECOMMENDATIONS

Based on the study, we can recommend the following aspects relating to corporate dividend policy of Bangladesh.

- 1. Companies should not skip dividend payment in any year without any strong reason.
- **2.** Companies should pay constant and regular dividend every year to attract the risk-averse investors.
- **3.** Dividend per Share affects stock price. So, managers should take a great care at the time of deciding about the amount of dividend.
- **4.** Shareholders are bearing the maximum risk in the company and for that they must get reward in terms of handsome return on their investments. For this reason, financial managers should distribute a reasonable amount as dividend.
- **5.** Companies should design their dividend policy in such a way that it can maximize the shareholders' wealth, which is one of the key objectives of financial management.

#### 7.6 LIMITATIONS OF THE STUDY

Like all other studies on dividend policy, and more generally, this study has some limitations. Since the research study is an individual effort, some unavoidable limitations of the study are pointed out. Limitations of this study may open opportunities for advanced research in the future. They are as follows:

- 1. For the study, secondary data have been collected from the Monthly Review of Dhaka Stock Exchange Limited, Website of Dhaka Stock Exchange Limited, Annual Reports of sample companies and other secondary sources. Therefore, the quality of the study depends on quality and reliability of these secondary sources.
- 2. The study is carried out for limited number of sectors and companies only. It is tough to arrive at a particular conclusion from a sample. Although much care has been taken at the time of sample selection, sample companies cannot represent the whole sector. The main reason for the selection of limited sectors and companies is the limited time schedule and constraints of resources.
- 3. Due to accounting complexities involved with noncash dividends such as share distributions and share splits, this study considered only cash dividend payments.
- 4. There are different methods to measure dividend policy of the companies and there are different techniques to examine the relationship between dividend and variables. In this connection, views of experts differ from one another.

### 7.7 SCOPE FOR FURTHER RESEARCH

The study has certain research limitations. So, there are scopes for further research in the same area. This study has analyzed only eight sectors from DSE. So, further research can be done with the whole population and can be extended with some more research tools and techniques. I have collected responses of management of the firms regarding their views on dividend policy. The researcher can collect responses of shareholders with the help of questionnaire to understand expectations of shareholders regarding dividend.

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## **APPENDIX**

Survey Questionnaire



**Research Title:** 

Corporate Dividend Policy in Bangladesh -- A Study of Firms Listed in DSE

Dear Sir,

(Chairman, Managing Director, Director, CFO, Company Secretary)

I am a researcher of DBA Program at the Department of Accounting & Information Systems (AIS), University of Dhaka. Because you are the one who can give suitable opinion on my research topic, I request you to respond to the questions in the questionnaire. I assure you that the information provided by you will be kept strictly confidential and used only for academic research purpose. I am conducting my research work under the supervision of Prof. Md. Abdul Hakim, former Chairman, Department of AIS, University of Dhaka.

I greatly appreciate the help of your organization and yourself in furthering this research work.

Kind Regards,

SD/-

(Md. Jahangir Alam Sheikh)

Associate Professor, Department of Accounting

Dhaka Commerce College, Dhaka

Reg. No. 04, Session: 2015-2016

# **Section I: Personal Information**

..... 2(f)

1. N	1. Name (Optional):		
2. P	Position :		
a.	Chairman	2(a)	
b.	Managing Director	2(b)	
c.	Director	2(c)	
d.	Chief Financial Officer (CFO)	2(d)	
e.	Company Secretary	2(e)	

# 3. Firm belongs to sector:

f. Financial Analyst

a.	Banking Sector	3(a)	
b.	NBFI (Financial Instructions) Sector	3(b)	
c.	Engineering Sector	3(c)	
d.	Food & Allied Products Sector	3(d)	
e.	Fuel & Power Sector	3(e)	
f.	Textile Sector	3(f)	
g.	Pharmaceuticals & Chemicals Sector	3(g)	
h.	Insurance Sector	3(h)	

# Section II: Questionnaire on Dividend Policy in DSE Listed Firms

## a. How important are the following factors to make your company's dividend decisions?

(Please, tick the appropriate options.)

1.	O	wnership Structure	
	a.	Not Important	1 (a)
	b.	Less Important	1 (b)
	c.	Moderately Important	1 (c)
	d.	Important	1 (d)
	e.	Very Important	1 (e)
2.	Re	eserve and Surplus	
	a.	Not Important	2 (a)
	b.	Less Important	2 (b)
	c.	Moderately Important	2 (c)
	d.	Important	2 (d)
	e.	Very Important	2 (e)
3.	Ne	et Asset Value per Share	
3.	No a.	et Asset Value per Share Not Important	3 (a)
3.			
3.	a.	Not Important	
3.	a. b.	Not Important Less Important	3 (b)
3.	<ul><li>a.</li><li>b.</li><li>c.</li></ul>	Not Important  Less Important  Moderately Important	3 (b) 3 (c)
	<ul><li>a.</li><li>b.</li><li>c.</li><li>d.</li><li>e.</li></ul>	Not Important Less Important Moderately Important Important	
	<ul><li>a.</li><li>b.</li><li>c.</li><li>d.</li><li>e.</li></ul>	Not Important Less Important Moderately Important Important Very Important	
	a. b. c. d. e.	Not Important  Less Important  Moderately Important  Important  Very Important  Arnings per Share	
	<ul><li>a.</li><li>b.</li><li>c.</li><li>d.</li><li>e.</li></ul> Ea <ul><li>a.</li></ul>	Not Important  Less Important  Moderately Important  Important  Very Important  arnings per Share  Not Important	
	a. b. c. d. e.  Ea	Not Important Less Important Moderately Important Important Very Important  Arnings per Share Not Important Less Important	

5. D	oividend Payout Ratio	
a.	Not Important	5 (a)
b.	Less Important	5 (b)
c.	Moderately Important	5 (c)
d.	Important	5 (d)
e.	Very Important	5 (e)
6. D	ividend Yield	
	vividend Yield Not Important	6 (a)
a.		6 (a) 6 (b)
a. b.	Not Important	
a. b.	Not Important Less Important	6 (b)

## b. Do you agree that dividends have an impact on Stock Price?

(Please, tick the blank space as per your level of agreement or disagreement.)

- 1. Strongly Disagree
- 2. Disagree
- 3. Indifferent
- 4. Agree
- 5. Strongly Agree

Thank you so much for your time and cooperation.

# (Md. Jahangir Alam Sheikh)

Associate Professor, Department of Accounting Dhaka Commerce College, Dhaka Reg. No. 04, Session: 2015-2016